

FIELD Report No. 14: SUSTAINABILITY IN THE HONDURAN INFORMAL MARKET SYSTEM

Produced in collaboration with the
FIELD-Support LWA



USAID
FROM THE AMERICAN PEOPLE



fhi360
THE SCIENCE OF IMPROVING LIVES

FIELD Report No. 14: SUSTAINABILITY IN THE HONDURAN INFORMAL MARKET SYSTEM

July 2012

This publication was prepared by Geoffrey Chalmers of ACDI/VOCA, Malick Haidara of USAID/Honduras, Erwin Alvarez, and Gabriel Chiriboga. CONFIE, a Honduran firm specializing in survey methodologies and implementation, carried out the surveys and provided statistical analysis. The report was produced through an assessment funded through the FHI 360-managed FIELD-Support LWA. Find out more about FIELD-Support LWA at www.kdid.org/projects/field-support.

This study was made possible with the generous support of the American people through the United States Agency for International Development (USAID). The contents are the responsibility of the authors and do not necessarily reflect the views of FHI 360, USAID or the United States Government.

Table of Contents

Acronyms	2
I. Executive Summary	3
II. Background	4
Market Background: Increased Production and Sales, and the Rise of Supermarkets.....	4
Trends in Horticulture toward a Two-Tiered System.....	5
III. Understanding Informal Market Systems	6
Roles of Intermediaries.....	10
Understanding Farmers’ Market Options and Decisions.....	12
IV. Observations on Market Systems and Sustainability	23
“Graduation” Regions.....	24
“First Generation” Regions.....	25
V. Successful Models	26
Successful Models in Graduation Regions.....	26
Successful models in First Generation Regions.....	27
VI. Suggestions for Sustainable Market Systems	28
Guiding Principles.....	28
Key Interventions for a Sustainable Market System.....	28
Annexes	
Annex 1: Complete Data Analysis Charts.....	33
Annex 2: Detailed Findings and Analysis of Broker Surveys.....	37
Annex 3: Elements for replication in intermediary business models.....	44
Annex 4: Characteristics of “Successful Models” Compared to Informal Intermediaries.....	50
Annex 5: Methodology.....	51
Figures & Tables	
Figure 1. Market channels and the spectrum of formality.....	6
Figure 2. Beans Value Chain in Honduras.....	8
Figure 3. Corn Value Chain in Honduras.....	9
Figure 4. Horticulture Value Chain in Honduras.....	9
Figure 5. How brokers get product to market.....	12
Figure 6. Brokers’ value-added to product.....	12
Figure 7. Market channel and access to TA.....	14
Figure 8. Use of contracts.....	15
Figure 9. Source of price information.....	16
Figure 10. Participation in production planning.....	16
Figure 11. Market channels and farmer grouping.....	17
Figure 12. Average earnings and access to TA.....	18
Figure 13. Access to TA and participation in production plan.....	19
Figure 14. Farmer grouping and quality norms, TA, and inputs credit.....	20
Figure 15. Average earnings (in US\$) per type of crop, according to participation in crop planning.....	21
Figure 16. Earnings per crop according to landholding size.....	22
Figure 17. Inputs assistance and earnings.....	22
Figure 18. Access to TA, quality norms, and production planning by gender.....	23
Figure 19. Illustrative Strategic Alliances.....	30
Table 1. Reasons for buying directly from farmers vs. buying from other intermediaries.....	11
Table 2. Contrast between negative and positive positions towards dealing directly with farmers.....	40
Table 3. General perception of what is wrong and what is good about the way they do business.....	43

Acronyms

CIAL	Local Agricultural Research Councils
FIPAH	Foundation for Participatory Research with Farmers of Honduras
FUNDER	<i>Fundación para el Desarrollo Empresarial Rural</i>
GDP	Gross Domestic Product
MCC	Millennium Challenge Corporation
NGO	Non-governmental Organization
PoP	Pathways out of Poverty
TA	Technical Assistance
USAID	United States Agency for International Development
VC	Value Chain
WFP	World Food Program

I. Executive Summary

Honduras has made substantial progress over the past decade in the agricultural sector, particularly in production skills and market linkages in the fresh fruits and vegetables sector, due in part to substantial intervention by international donors. The resulting agriculture system has an increased capacity—but remains donor dependent. This has led USAID to explore ways of harnessing more local actors (primarily, but not exclusively, in the private sector) to create more sustainable market systems capable of “upgrading” the different levels of the chain for the benefit of all. Two roles are identified as being critical in this regard: 1) production-related technical assistance (TA); and 2) “calendarized” production planning.

To achieve this goal of harnessing local market actors to generate more sustainable market systems that can grow and prosper without continued donor intervention, we first look to the higher profile formal market actors such as supermarkets and exporters. We do so for two reasons: first, they are in some cases already providing some of the services critical for a sustainable rural market systems, albeit to a limited degree and usually in partnership with others in the public or donor sector; and second, they have the clearest incentive to invest in quality and timely availability, since these characteristics are what their end-markets demand. Although this is promising in that it demonstrates that the private sector can play a proactive role in linking to and upgrading smallholder producers when proper incentives exist, this still represents a relatively small share of overall volume and value of agricultural transactions, and a limited number of small producers are benefiting. This study thus explores from various perspectives the challenges of enabling a more sustainable market system for larger numbers of small producers. After setting the context with a discussion of trends and profiles of the target crops, we describe the roles of market intermediaries or brokers and the market channel options facing small producers.

We find that informal intermediaries indeed represent the single most important market channel for small producers; most have verbal agreements with their suppliers (producers), which highlights a potential springboard for more coordination in the future; they pay their suppliers in cash at the moment of sale, this being a key competitive advantage; they tend not to provide additional services such as TA, production planning, or access to inputs; but they do add value in a number of other ways, including their flexibility in last-minute purchases and their willingness to provide transportation.

In terms of producers, the study found three over-arching findings: first, small farmers who receive TA and/or are part of a production planning process are more likely to sell to supermarkets or farmer’s groups than to intermediaries, and are more likely to earn more per crop/per season; this segmentation is not, however, based on landholdings, as smaller-scale farmers are just as likely as larger-scale ones to be in these categories. Second, farmer grouping is critical to making markets work for the poor, particularly in high-value products; it is often required by formal buyers, and it provides bargaining power and facilitates access to additional services. Third, despite its shortcomings, many producers depend on intermediaries because of their up-front payments and their transportation services, and even those producers who sell to supermarkets rely on them as a major source of price information.

A thorough analysis of the data and the results of the qualitative study reveal distinct characteristics of and different market development strategies for the two regions of interest to USAID (the western six departments, called “graduation regions” because of the history of USAID and MCC support, and southern Yoro department, called a “first generation” region).

In “graduation regions,” embedded extension services (including the cost of extension services within the price of crop sale) is currently limited; but it is promising, since the cost is postponed until the time

when farmers have more cash available, and “payment” is tied closely to the success of the harvest. Cost-sharing is also a promising way of embedding these roles into the private sector; individual or grouped farmers, buyers, inputs dealers, financial institutions, and market-led NGOs have all shown a willingness to invest in tandem. Finally, successful models among buyers tend to favor lower cost “light” extension, more akin to guidance than intensive one-on-one TA.

In “first generation” regions, we find it difficult to envision the private sector engaging with or building up the capacity of unprepared farmers in the high-value crop sector, in the absence of some sort of public investment. Few commercial actors are currently playing the roles of TA and crop production planning, due in part to the fact that corn and beans—commodities in which fewer incentives exist to demand quality, and in which cost is the driving force—are dominant in these regions.

Specific successful models in which local market actors collaborate to fill critical upgrading roles do exist in each of these two different regional contexts. These models each have elements of sustainability and have potential for a “demonstration effect” that will encourage others to replicate. They are diverse in terms of the profile of the lead buyer (exporters, rural intermediaries, farmer-based organizations, supermarkets), the “governance” of the model (who “leads” and coordinates among the actors), and the type of TA that is provided (light versus intensive, who actually pays the cost).

In conclusion, a strategy to stimulate a sustainable pro-poor market system based on these findings will require a facilitation approach with an emphasis on the following key elements: 1) alliance with and between the private sector—buyers, finance providers and input suppliers; 2) promoting effective farmer grouping; 3) technical assistance with creative cost sharing strategies; and 4) seeking greater and more value-adding participation by market intermediaries.

II. Background

The target population of this study was twofold. On the production side, the target was small farmers of corn, beans and horticulture in two regions of Honduras: the six western departments consisting of Ocotepeque, Lempira, La Paz, Santa Barbara, Intibucá, and Copan; and southern Yoro department. The six western departments—focus area for Feed the Future initiative in Honduras—were selected for the combination of food insecurity and market potential; southern Yoro was selected based on high levels of food insecurity and a relative lack of donor support in recent years to improve the rural market system. On the market side, the principal target was the market brokers and intermediaries, many of whom tend to operate in the less formal market channels. In addition to these two principal focus points, the study examines the practices and trends of more formal buyers as well, both as a point of comparison and for potential replication. Finally, the role of “third party” actors such as inputs dealers and financial institutions is also analyzed in the context of their participation in various strategic alliances.

Market Background: Increased Production and Sales, and the Rise of Supermarkets

In recent years, horticultural production in Honduras has increased from 407,000 tons in 2004 to 500,000 tons in 2009 (FAOSTAT, 2011). Unfortunately, no recent disaggregated figures for different regions of the country exist, but experts suggest that production is concentrated in central and western Honduras.

Cross-border trade with El Salvador and Guatemala is significant, but opaque. Official trade statistics, which give a general sense of recent trends of the most formal trade, suggest that bean imports from Nicaragua have been growing steadily from 2005 (US\$1.18 million) to 2010 (US\$11.75 million), while vegetable exports to Central America are greater than vegetable imports from neighboring countries, but are erratic and declining (from US\$6 million in 2005 to US\$2.5 million in 2009).¹ However, it must be noted that experts indicate that the informal nature of much of the cross-border regional trade is such that official figures are only a fraction of the actual cross-border trade.

The changing nature of the Honduran market for fresh fruits and vegetables is neither new, nor unique in the region. As reported by Thomas Reardon in a series of papers about the “supermarketization of Central America,” the share of supermarkets in overall food retailing in the region increased from 5 to 10% in the 1990s to 30 to 40% by the mid-2000s.² This rise of supermarkets has precipitated a major change in the opportunities available to small producers, representing both an opportunity (a more predictable market that sometimes pays a premium for quality) and a threat (those unable to meet quantity and quality standards may find themselves relegated to lower-value “seconds” markets with a shrinking market share).

Trends in Horticulture toward a Two-Tiered System

As a result of these trends, a two-tiered system of marketing of fruits and vegetables has emerged in Honduras and other Central American countries. On one hand, increasing formality and centralized procurement that largely bypasses the informal brokers, and represents an attractive market for a minority of growers; and on the other, the traditional, informal spot markets, dominated by brokers of different stripes, and that rely on wholesale and retail markets, representing a lower-margin market for the majority of growers. As seen in the graphic below, the more formal market channels have several characteristics that lead to greater emphasis on quality and reliability, whereas less formal channels tend to emphasize flexibility and timeliness.

These two tiers, however, are more like ends of a spectrum than two distinct market systems. Informality exists even in the highest margin activities, and there is considerable crossover between the market players. Formal buyers such as supermarkets, large bean processors, and exporters still rely on informal brokers for significant proportions (in some cases, a majority) of their purchases, and many producers and associations sell to both formal and informal buyers in order to diversify and segment their own production. This role for informal market brokers, of being the “buyer of last resort” for those producers who are striving to sell to higher-margin markets, is in fact a key way they add value. Because some portion of producers’ crops will always be rejected by those buyers with high quality standards, having a reliable buyer for these “seconds” becomes a key way to spread risk (putting a floor on losses) and augment earnings while they upgrade their production systems and begin to take advantage of high-value opportunities. (See Figure 1)

¹ FAOSTAT online database

² Reardon, et al: Central American Supermarkets’ Private Standards of Quality and Safety in Procurement of Fresh Fruits and Vegetables. *Food Policy* (30) 3:254-269. 2005

Figure I. Market channels and the spectrum of formality



III. Understanding Informal Market Systems

The first objective of this study is to understand how the informal market systems function. As is to be expected in anything informal, the parts of the market system most characterized by informality are also those parts least understood and with the least amount of official data. A limited household and intermediary survey was thus conducted, not to attempt a representative national survey from which to draw definitive conclusions, but rather to provide us with indications about how a significant sampling of households with the characteristics we sought³ respond to a series of questions about market channels, options, and access to related services.

Before undertaking an exercise in understanding the more informal parts of these sectors, it is imperative to first view the value chain as a whole before trying to separate out the more informal elements.

The bean, corn, and horticulture⁴ value chains are quite distinct in their structures, as viewed by the three value chain maps below. In particular, horticulture is a more complex chain, with more layers and combinations of market actors. Below, we map out and describe the general categories of market actors for each of these three value chains. This will allow us to zoom in on the less formal elements and actors within each.

³ Past recipients of an MCC project, and thus within the selection criteria of that program - combined with other non-beneficiaries without the selection bias of inclusion in the MCC project. See Annex 5, Methodology, for more details.

⁴ Horticulture is viewed as one “meta” value chain, despite the significant differences between specific crops within this label.

Basic Grains

The category of basic grains holds the most social and economic importance in Honduran agriculture, representing 12% of agricultural GDP and generating about 300,000 permanent jobs. It is estimated that 500,000 farms are devoted to basic grains, of which 220,000 families grow for home consumption. Eighteen percent of the country's arable land is used in the production of basic grains. During 2005-2009, there was an increase in the production of corn and beans from 12.6 million quintales in 2005 to 20.0 million quintales in 2009, representing a growth of 63%.⁵

Beans

Figure 2 below presents an approximation of the key market actors and relationships in beans. The beans value chain is composed of six levels of market actors (inputs, production, groups, intermediaries, processors, and final markets), and in comparison to the horticulture value chain is fairly vertically integrated. As with other value chains, the inputs dealers (“agropecuarias”) serve as the first link, providing the seeds, fertilizers, pesticides, and occasionally the equipment to producers. The producers are a mix of large and smallholder producers; like corn, a huge number of rural Honduran families grow beans, but many do so for purely or mostly consumption. Those smallholder producers who do sell their beans either do so directly in the local market, or to producer groups or intermediaries who then sell on to processors. The processors, located mostly in the cities, store, clean, and package the final product for sale to a variety of end markets (local markets, supermarkets, WFP, and export). Larger producers are linked directly with the processors.

There are various points at which technical assistance/guidance, land preparation, and inputs assistance are offered or could be offered to producers on a commercial basis: from the agropecuarias, the producer groups, and in some cases the rural intermediaries

Corn

The corn value chain is also composed of six levels of market actors (inputs, production, groups, intermediaries, wholesalers, and final markets), but is less vertically integrated and more “loose” than the beans value chain. Again, the producers are a mix of large and smallholder producers, many of whom plant for purely or mostly consumption. “Commercial” smallholders tend to sell to groups or rural intermediaries, many of whom often sell on to urban intermediaries before being processed. The end market differs slightly in that most corn makes its way either to tortillas, WFP, or animal feed. As with beans, technical assistance/guidance, inputs assistance, and land preparation are offered or could

**Local Agricultural Research Councils (CIALes),
an integrated research/production model in Yoro**



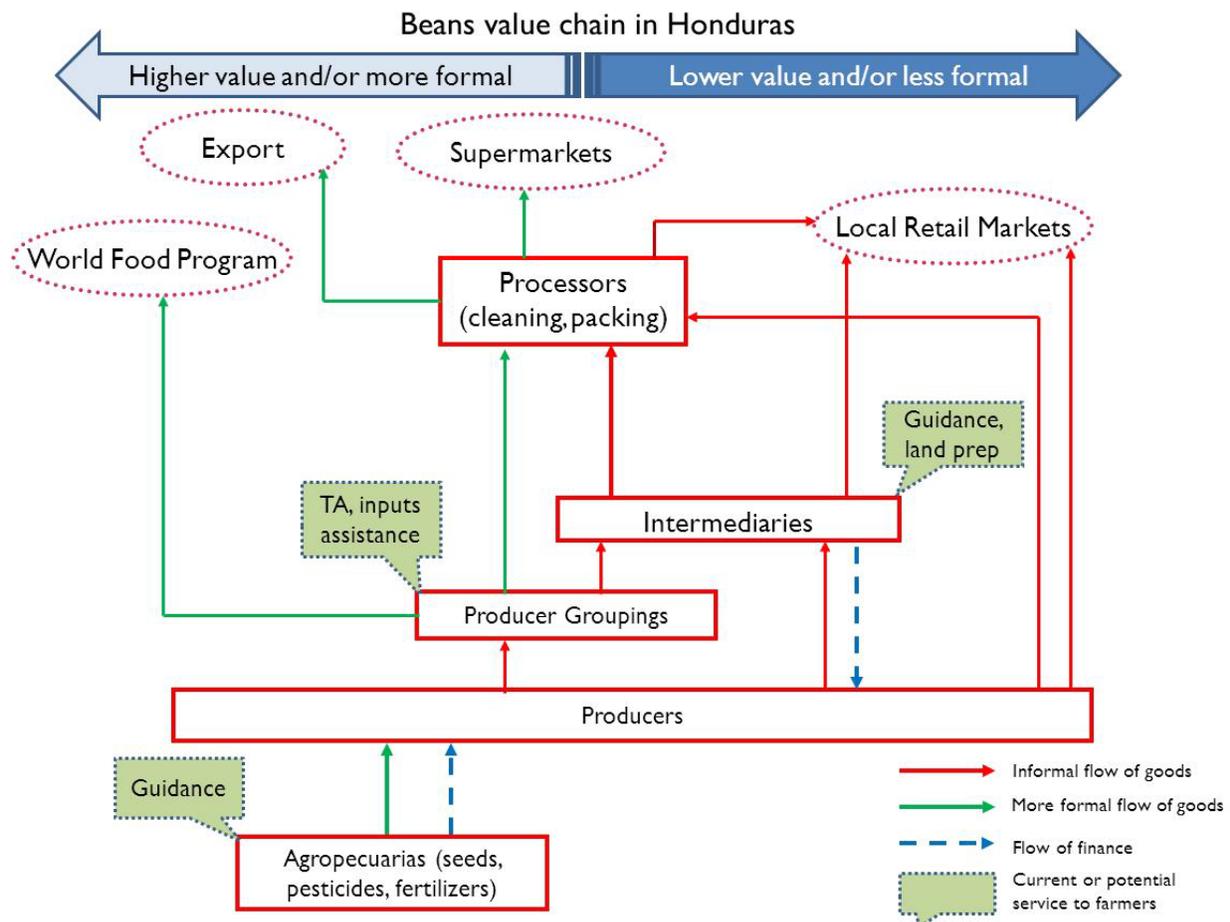
⁵ SAG: Programa (Honduran Ministry of Agriculture and Livestock):
http://www.sag.gob.hn/index.php?option=com_content&task=view&id=73&Itemid=1086.

be offered to producers on a commercial basis from the agropecuarias, the producer groups, and in some cases the rural intermediaries. Figure 3 presents an approximation of the key market actors and relationships in corn.

Horticulture

Compared to beans and corn, the horticulture value chain is considerably more complex and less vertically integrated, with more levels of actors, high degrees of informality, and fewer large buyers at the “top” of the value chain. Smallholders are quite dominant in horticulture as a rule, but the local markets and the informal rural and urban intermediaries play an outsized role given the aforementioned dearth of large buyers with established procurement systems, as described later in this report. As described in detail in this report, there are multiple points for potential technical assistance/guidance, inputs assistance, and crop planning to be offered on a commercial basis. See Figure 4 below on page 9.

Figure 2. Beans Value Chain in Honduras



Roles of Intermediaries

In quantitative surveys of 85 intermediaries, several characteristics and patterns emerge. The surveys show that all do business in a local market: 37 in the large regional markets in the cities of Tegucigalpa and San Pedro Sula; and the remaining 46 work at small “secondary city” markets. Buyers purchase both directly from farmers (57) and from other intermediaries; several are also producers.

As we will see below in the quantitative producers’ survey (see “Understanding farmers’ market options”), intermediaries represent the single most important market channel for small producers. It is difficult to estimate exact percentages due to the very informality, but most experts estimate that somewhere between 60 and 80% of transactions are conducted in less formal markets dominated by intermediaries and spot markets. As expected, these intermediaries tend to be quite informal in their makeup, with only 33% formally registered as a company. As discussed and corroborated below under the analysis of producer surveys, approximately 75% of brokers have a verbal agreement with their suppliers, with the remainder being spot-market transactions with no prior agreement. Interestingly, these proportions are reversed when discussing agreements with the buyers: only 25% of intermediaries reported entering into any kind of prior agreement with their buyers. This suggests that brokers add value by providing some element of organized purchasing from the producers, rather than serving as a reliable or consistent source of product to buyers. They overwhelmingly pay their suppliers in cash at the moment of sale, this being a key competitive advantage given the scarcity of cash in rural areas. They are unlikely to provide any kind of TA to farmers, and only 25% said they try to organize their suppliers’ production ahead of time. See Annex 2 for a more detailed analysis of the brokers’ survey.



Omar Sanchez, a rural intermediary, presents a check to a “preferred supplier.”

There was significant overlap between the results of the qualitative assessment of intermediaries (conducted through in-depth interviews with a variety of stakeholders) and the open-ended qualitative questions on the surveys of 85 intermediaries. Throughout both, several clear findings emerged related to the study’s attempt to identify how key market roles could be provided by the private sector:

- Less formal brokers have less capacity to provide additional services such as technical assistance or guidance to farmers. This is related to margins and resources for paying salaries or additional costs, as well as to the issue of vision. Related to this, 91% said they do not assist farmers in acquiring inputs. This finding was corroborated by the producers’ responses to this same question.
- With some notable exceptions, the less formal brokers tended to view their business model as more short term and were less likely to have a long-term business strategy. In contrast, exporters of fresh produce have the most need for high quality standards and are, not surprisingly, the most likely to hire agronomists to assist their farmers/suppliers.
- Less formal brokers are less likely to engage in calendarized production planning. More formal buyers did assume this role, planning out, organizing, and communicating with their supplier base to ensure the right quantities of the right crop at the right time for the market.
- Brokers who prefer to buy directly from farmers appreciate quality and affordability; those who do not, or would prefer not to, buy directly from farmers most often cite transportation difficulties in

not doing so. See table below on disadvantages and advantages of buying directly from farmers. (See Table I for a breakdown)

Table I. Reasons for buying directly from farmers vs. buying from other intermediaries

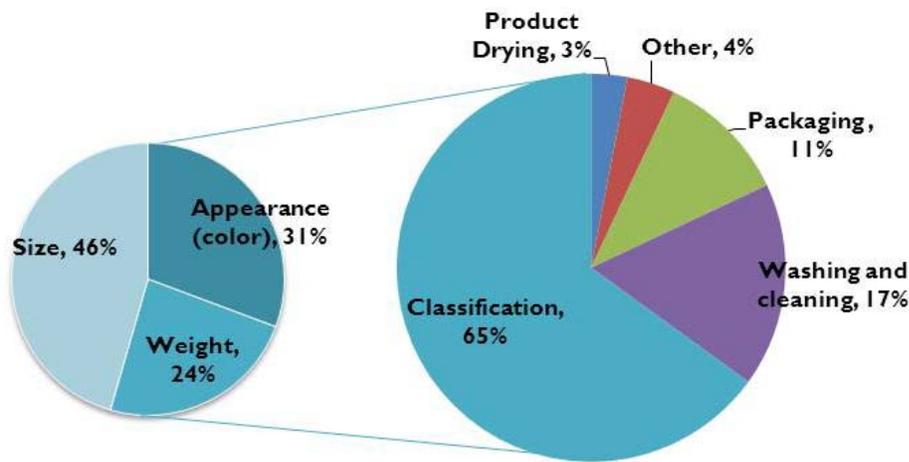
Response	Reason to buy from other intermediary		Reason to buy direct from farmers	
	Number of responses	% of total	Number of responses	% of total
Lower prices and/or payment conditions	32	23%	46	46%
No contact with farmers	12	9%	N/A	N/A
Consistency in delivery and/or volume	23	17%	11	11%
Quality and/or variety of products	21	15%	39	39%
Transportation difficulties	50	36%	1	1%

- In terms of transporting the product, 68% of brokers say they deliver the product to the buyer. (See Figure 5 below)
- A crucial competitive advantage of brokers—again corroborated in the producers’ survey—is the fact that they overwhelmingly (87%) pay cash to farmers on the spot.
- In terms of adding value to the product, 79% of brokers claim to do so. The most common process, carried out by 65% of buyers, is classification of product according to size, appearance, and weight in order of importance. Among all interviewed brokers, 76% of them recognized that some standard is required from their clients—and in that respect again size was the most important, followed by weight, appearance (color), and finally ripeness.
- Less formal rural brokers are key in buying “second” grade products, which benefits small producers. This emerged as a key role for rural-based brokers; their flexibility and up-front payments made them a key market diversification strategy for farmers selling directly to buyers offering higher margins but also requiring higher standards and offering inflexible purchasing terms.
- Based on the lack of additional services (such as TA) provided by less formal brokers (only 9% reported providing additional services), it is clear that the private sector is providing technical assistance to a limited degree, only to farmers already in the most advanced market channels.
- Formal buyers often have to rely on the informal market to ensure their supply: this practice, which often made up 20-25% of a formal buyer’s purchases, reinforces the notion that behind the black/white labels of “formality” and “informality” lie multiple shades of gray.
- More formal buyers prefer to deal with a well-established network of preferred suppliers, preferably groups rather than individual small farmers. This did not necessarily mean a preference for a formal association or cooperative, but some form of grouping was a prerequisite for most formal buyers, in contrast to informal brokers.

Figure 5. How brokers get product to market



Figure 6. Brokers' value-added to product



Understanding Farmers' Market Options and Decisions

The *farmer qualitative research* focused on the market options and decisions of farmers, as well as the correlations (though not necessarily causal ones) between those decisions and farmers' access to services such as TA and crop planning. Key findings were:

- Farmers who “graduate” from donor programs (even sophisticated ones) feel vulnerable without ongoing technical assistance or guidance.
- Farmer grouping is critical to making markets work for the poor, particularly in high-value products. This is because buyers demand it but also because it provides bargaining power and additional services for farmers.
- Small farmers cannot assume the full costs of one-on-one extension services through traditional fee-for-service models. The costs of explicitly paying for such services would clearly be prohibitive. As discussed below, private sector actors (including producer associations or groups) with the proper incentives can provide lighter TA or guidance—but intense TA to lift producers from low-margin market channels to more promising ones is likely to remain a serious gap.

- Farmers are more likely to follow guidance from brokers who have a vested interest in the production activities. Due to the stereotype of short-term opportunists attributed to coyotes, small farmers are not inclined to follow their recommendations in terms of crop choice or size of the plot to be planted—unless the coyote provided some financial or in-kind support, such as credit or input, or if a trusted relationship already exists between them.

The *farmer quantitative survey* included 461 producers (see Annex 5 for Methodology). As with the intermediaries’ survey, the main observations focused on the ways farmers were or were not receiving services and assistance from various market actors, and compared the characteristics of farmers selling to different market channels. The findings have been grouped into categories, according to the priorities of this study, which focus on farmers’ market behavior and choices, the characteristics of distinct market channels, and the roles of the corresponding market actors. Many graphs have been omitted in the interest of space, and have been included in Annex I.

Analysis Related to Market Channel

The market channel looks at the farmers from the optic of who is purchasing the crops. Here, we analyze the characteristics of farmers selling to distinct categories of buyers. Respondents were able to indicate more than one response. The most common market channel was intermediary/coyote (232), followed by “local market” (128), “other” (103; according to survey details, this category is made up primarily of neighbors, fellow producers, or family members), supermarket (28), and producer group/association (18).

Market Channel and Landholding

Of note, when we examined land holdings and the way they correlated with market channels, we found a lack of discernible patterns, suggesting limited correlation. For example, small and larger landholders sell to supermarkets in similar proportions. While larger landholders are slightly less likely to sell to intermediaries/coyotes, so are the smallest landholders. This suggests that generalizations such as “the large landholders are the only ones that can manage to sell to formal markets, while small farmers are stuck with informal coyotes” are oversimplified or inaccurate.

Market Channel and Access to TA

As expected, producers selling to intermediaries/coyotes (as well as “others,” made up of primarily friends, relatives, and other producers) are relatively less likely to have access to technical assistance. Those selling to supermarkets tend to have more individualized TA, while those selling to groups tend to have more access to group TA. See Annex I for further details and graphs on this analysis. The high proportion of those selling to supermarkets with access to TA (over 90%) clearly shows how important TA is for poor farmers to be able to tap into this market channel that requires more stringent quality standards.

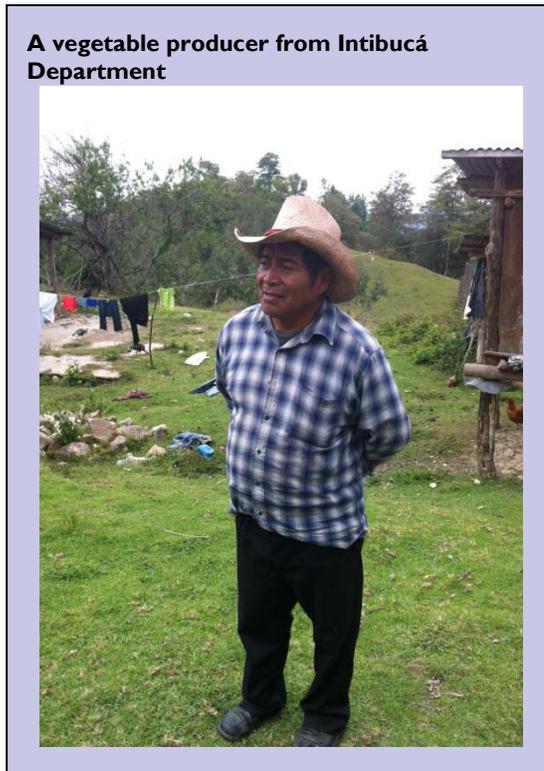
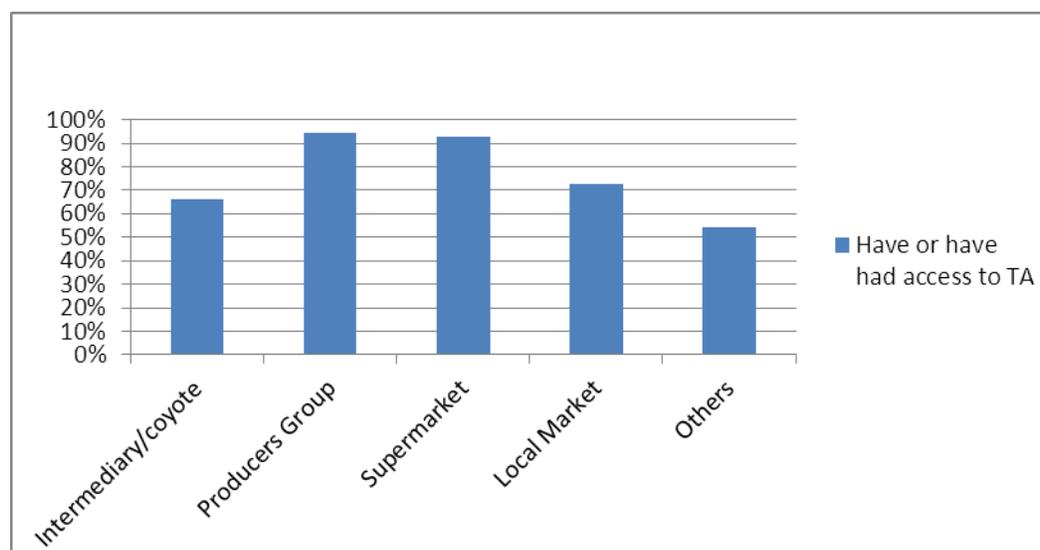


Figure 7. Market channel and access to TA



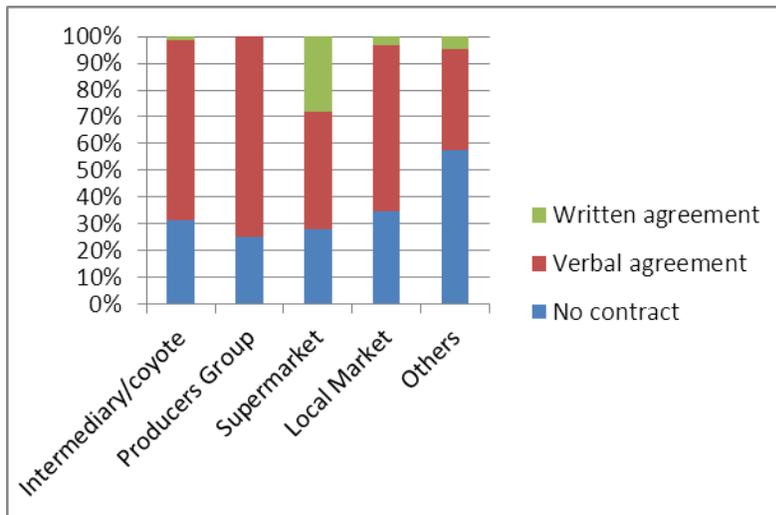
Market Channel and Mode of Transport

The most significant finding related to the mode of transporting goods to markets is that intermediaries/coyotes are significantly more likely to come to the farm to pick up the produce – another significant competitive advantage for them. Producers selling to supermarkets, in contrast, are more likely to pay a “flete” (a truck service with driver), while those selling to producer groups are most likely to own their own vehicles; local market suppliers and others had similar proportions of owning their own trucks, paying a flete and having the buyer come to the farm. These findings are significant since transportation is a major part of the cost structure; this reinforces the notion that transportation could be a constraint to selling to higher value market channels such as supermarkets. However, this market channel remains desirable due to the price premium and/or stability it offers. See Annex I for further details and graphs on this analysis.

Market Channel and Use of Contracts

In terms of producers’ tendencies to use written or verbal contracts or agreements, as shown in Figure 8, those who sell to supermarkets (the most formal of all the market channels), are unsurprisingly the most likely to use some form of written agreement. Also of note is that in all except the “other” category, the use of verbal agreements is widespread. Only 25 to 35% of respondents in these four categories (those selling to intermediaries, groups, supermarkets, or local market) report using no agreement at all. This finding has important implications for the recommendations in Section V: although intermediaries eschew written contracts almost entirely, many seem to have satisfied a key precondition for establishing more formal, calendarized production systems with a network of suppliers, by relying on verbal agreements.

Figure 8. Use of contracts



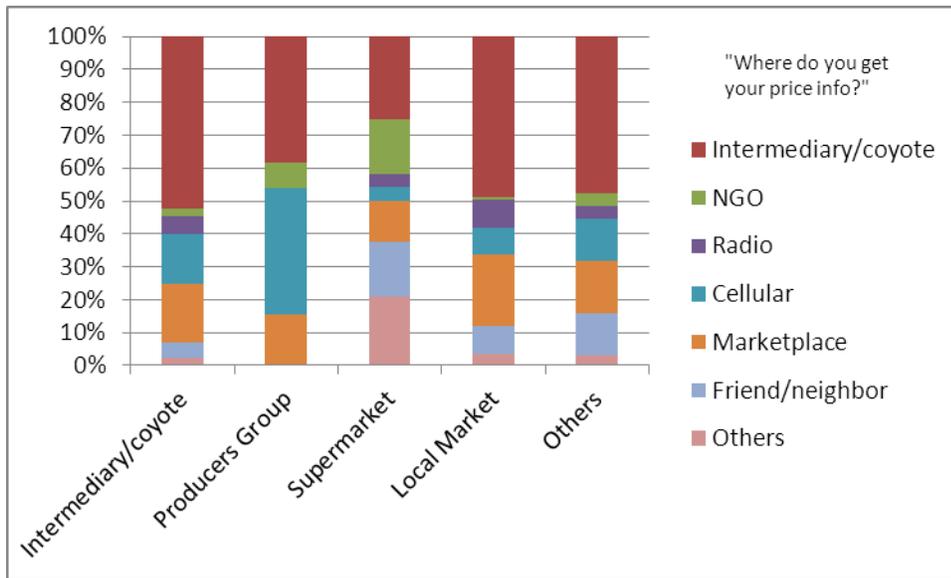
Market Channel and Payment Terms

When we examine the terms under which producers are paid for their produce, supermarkets are most likely to insist on delayed payment to suppliers. Eighty percent of producers who sell to intermediaries/coyotes report cash payments at time of the transactions—a key competitive advantage vis-à-vis more formal market channels, given the scarcity of cash in rural areas. See Annex I for more.

Market Channel and Access to Price Information

Figure 9 below presents the market channel (to whom the respondent sells) on the x-axis, and the source of their price information is the color-coded key. For example, 52% of those selling to intermediaries received their price information from the same intermediaries, while only 4% received price information from an NGO. Most notable in this category is the significance of the intermediary/coyote as a source of price information. Of course, although this highlights an important role they are currently playing, it may not be in producers' interest in terms of access to unbiased sources of information. Another interesting finding is the prevalence of “marketplace quotes” in all market channels. Finally, the use of cell phones for obtaining market information was significant in particular for those in producer groups.

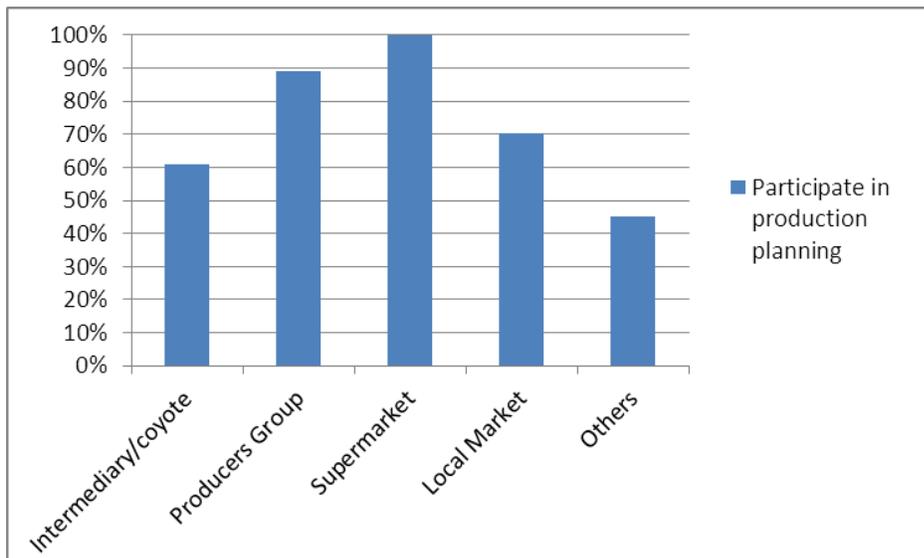
Figure 9. Source of price information



Market Channel and Production Planning

Producers who sell to supermarkets (and to a lesser degree producer groups) were, unsurprisingly, considerably more likely to report being part of a calendarized production plan, as shown in Figure 10 below. Those selling to producer groups were also considerably more likely to participate in production plans. This can be explained principally by the requirements of the buyer, some of whom insist on such planning so that they can reliably predict supply.

Figure 10. Participation in production planning

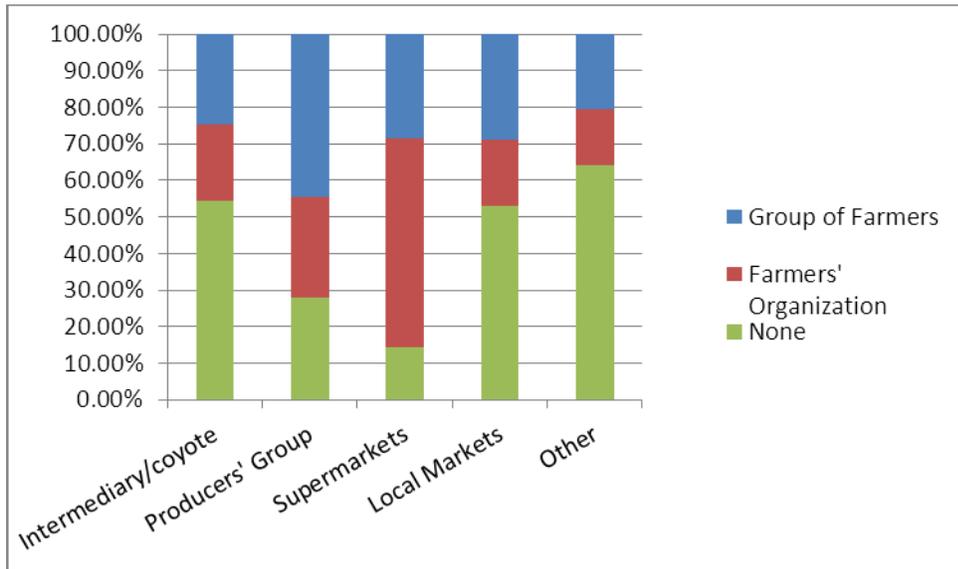


Market Channel and Farmer Grouping

The ability to sell to supermarkets increases with group membership; among those farmers who sell to supermarkets in our sample, 57% are members of a farmers' organization. This percentage continues to decrease as the formality of the group decreases, as only 28% of supermarket suppliers are members of a (less formal) group of farmers, and 14% do not belong to any group. This finding is consistent with the assumption that supermarkets in general prefer to deal with grouped farmers rather than individual

ones. Dealing with grouped farmers not only facilitates meeting the volume requirements but also reduces the burden of administering several small payments. Over 50% of producers who mostly sell to informal market channels, are not part of any group or organization; producers who deliver to formal markets, in contrast, mostly do belong to an organization or group of producers. This could indicate that the formal market generates a more stable and conducive environment to create alliances between producers.

Figure 11. Market channels and farmer grouping



Market Channel and Assistance in Acquiring Inputs

An analysis of the question “did anyone assist you in acquiring inputs?” reveals interesting trends. Most notably, those who sell primarily to supermarkets are by far the most likely producers (67%) to receive assistance from someone in this regard, followed by those who sell primarily to producer groups (56%). Those selling to intermediaries, local markets, and other buyers are the least likely to be assisted in acquiring inputs (only 38%, 32% and 33% respectively). This reinforces the notion that supermarkets and producer groups have the most incentives to ensure (even if not providing inputs themselves) that growers have access to proper inputs, whereas the other markets operate more at arms’ length especially when it comes to planting and planning.

However, the picture is less clear when we examine the actual provider of such inputs assistance: in this regard, the role of producer groups stood out. Although not surprising that those selling to such groups also acquired inputs from them, the scale of this response (80%) is striking. Also surprising was that even among those selling to intermediaries, a significant number (28%) reported receiving inputs from producer groups or associations. This may be explained by the fact that members of producer groups often sell to multiple market channels, and thus may be acquiring inputs through the group and then selling to the intermediaries. Finally, NGOs play a significant role in providing inputs to those selling to supermarkets (52%) and local market (61%) channels.

Input Credit Term and Market Channels

Among those who reported assistance in acquiring inputs, there was considerable diversity in the terms of such assistance: a surprising number of respondents (a majority in all five categories) reported that it was either as an advance against the future crop, or on credit. Only those selling to “other” buyers (such as friends, relatives) reported in significant proportion (35%) that the inputs were donated. Again, the low number of respondents in the “producers group” market channel cautions against drawing

statistically supported conclusions. The average number of days of the credit term for these producers (keeping in mind the shrinking base of respondents—only 106 total respondents reported receiving inputs on credit—means that the responses in the “producers group” and “supermarkets” categories are not statistically significant) is interesting in two ways: first, it actually varies little across market channels. Second, it is considerably higher than is often assumed with inputs credit. At 100 to 130 days, the term is actually fairly well aligned with a horticultural season. See Annex I for more.

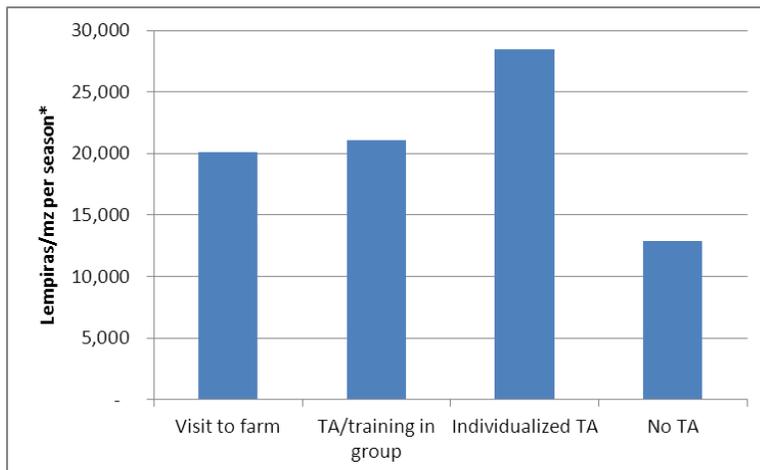
Analysis Related to Technical Assistance

The farmers’ survey asked whether or not the interviewee receive technical assistance of any kind: this could include from a donor project (for example, USAID/ACCESO) or NGO, a producer association, a buyer, or others in the private sector, in the past or the present. In total, 62% reported receiving some form of TA. In terms of the type of assistance (respondents could report more than one), about 44% of respondents who do receive TA described it as a site visit (a monitoring visit, which implies little time commitment and low levels of knowledge transfer); 75% reported receiving group training or TA; and 25% reported receiving individualized TA, the most time and cost-intensive form of TA. This is significant because of the differences in cost and the (presumed) difference in impact of these different TA models.

A large majority of TA is provided by NGOs through donor-funded projects (combining USAID and NGOs, over 50% of TA are provided by NGOs). Producers groups are the second larger provider of TA, which supports the idea that farmer grouping could be a step forward to facilitate access to TA. Thus far the private sector—represented by supermarkets, input suppliers, and intermediaries—does not play a significant role in the provision of TA (only 16% of all TA).

Access to TA and Average Earnings

Figure 12. Average earnings and access to TA

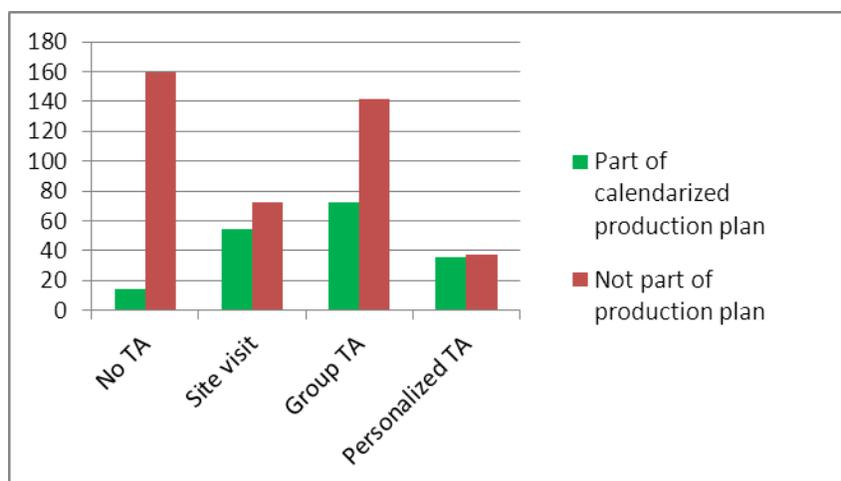


*Figures are per manzana and per agricultural season or cycle (there are often two or three cycles per year depending on the crop)

As Figure 12 illustrates, those farmers who have or have had access to TA seem better able to turn both individualized TA as well as the “light touch” farm visits and group training into increased income when compared to those who had not been a part of such programs. However, we must caution against assigning causality where it is not supported by the question and survey methodology. Furthermore, when we look at reported earnings, we must be careful, since these are self-reported earnings and producers report such figures with varying degrees of accuracy.

Access to TA and Participation in a Production Plan

Figure 13. Access to TA and participation in production plan



Producers who received some sort of technical assistance were considerably more likely to report being part of a calendarized production plan. This difference is particularly significant when looking at those without TA, only 8% of whom are part of such a plan. Among those with some sort of TA, 39% are part of such a plan, but the degree of intensity of the TA seems to matter: about half of those with personalized TA are part of production plans, compared to only 34% of those that receive group TA. Interestingly, among those that receive site visits, the least intense form of TA, 43% are part of such a plan, nearly the same proportion as those with personalized TA.

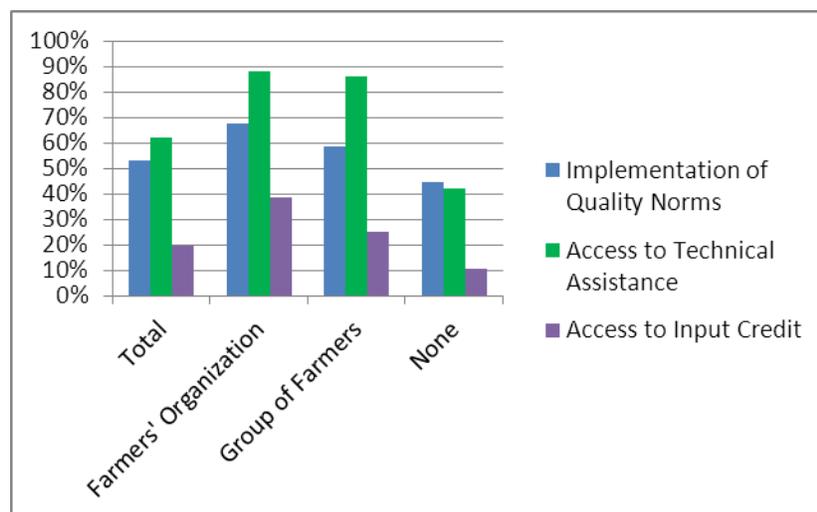
The provider of the TA was less significant. Farmers reported being part of a production plan in roughly similar proportions (ranging from 27% in the case of inputs providers, to 38% in the case of buyers/intermediaries) regardless of who was providing them with the TA. See Annex I for graphs and further detail.

Analysis Related to Farmer Grouping

Small farmer groups or associations can be informal or formal, traditional or modern, involve small or large groups, and pursue a variety of economic as well as non-economic ends. For the purpose of this assessment we will examine two different categorizations of farmers' groups: 1) a "farmers' organization," which is a more structured group with a governing body such as cooperatives, agricultural unions, or any other group associations with a recognized legal personality; and 2) a "group of farmers," a less structured and informal one formed only for the purpose of meeting certain market requirements and with no legal existence or governing body. For the sake of clarity, the terms "association" or "farmer grouping" in the following analysis will designate both categories. Of the 461 farmers surveyed, 44% indicated they were part of an association: 20% members of farmers' organizations, and 24% are members of a group of farmers.

Grouping and Quality Norms, Technical Assistance, and Access to Inputs Credit

Figure 14. Farmer grouping and quality norms, TA, and inputs credit



Two-thirds of the 62% of surveyed farmers who declared to be receiving or to have received some technical assistance are members of an association; this represents more than 80% of all grouped farmers of our sample. More than 55% of the grouped farmers who receive TA have also indicated that TA is part of the benefits they receive from their group. A farmer belonging to an association is more likely to receive TA than an individual farmer with no affiliation.

Nearly 53% of the farmers surveyed implement quality norms, 54% of whom are members of an association. A deeper analysis of these percentages reveals that being a member of a group increases the likelihood to implement quality norms, as 67% of all grouped farmers implement these norms, compared to 46% of ungrouped farmers. As TA is generally focused on good agriculture practices to improve quality and/or productivity, belonging to an association not only facilitates access to TA but also promotes the implementation of quality norms. Findings on quality norms are, therefore, consistent with findings on access to TA (previous paragraph).

Farmers' access to input credit seems to increase with the level of formality of the farmer's association. While nearly 39% of farmers' organization members have access to input credit, only 25% of those who are part of a less-structured group receive input credit, and only 11% of ungrouped farmers can claim the same benefit. With 70% of those who received input on credit being part of an association, group membership seems, therefore, to increase a farmer's likelihood to access input credit.

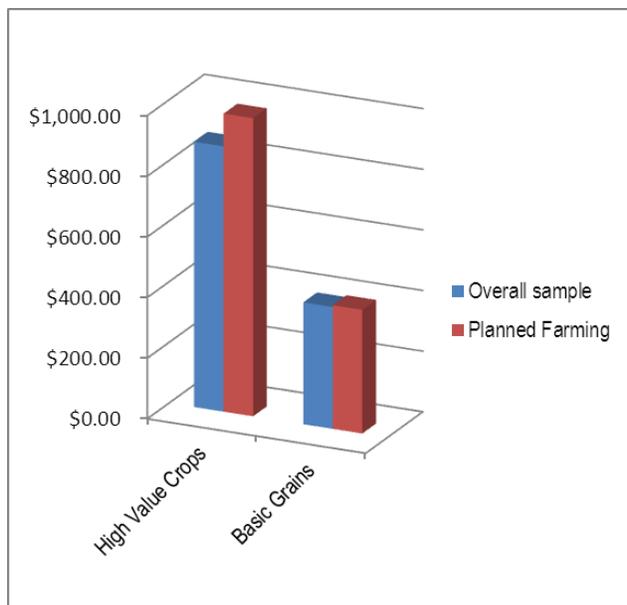
The analysis above indicates that group/association membership facilitates small farmers' access to various services that are necessary for their competitiveness in the market of agricultural products, thus demonstrating the importance of farmer grouping in any market strategy aiming to sustainably stimulate a rural market for the poor.

Analysis Related to Participation in a Production Planning Process

Participating in a "calendarized" production plan is perceived as one of the highest milestones for farmers to achieve successful integration in the value chain and the market. In the Honduran context this requires the farmer to be in close relation and synchronization with his/her buyer and seems to occur more frequently with more formal buyers such as supermarkets.

In our survey sample, 23% or 107 of the farmers said that they participate in some type of planned production program.

Figure 15. Average earnings (in US\$) per type of crop, according to participation in crop planning

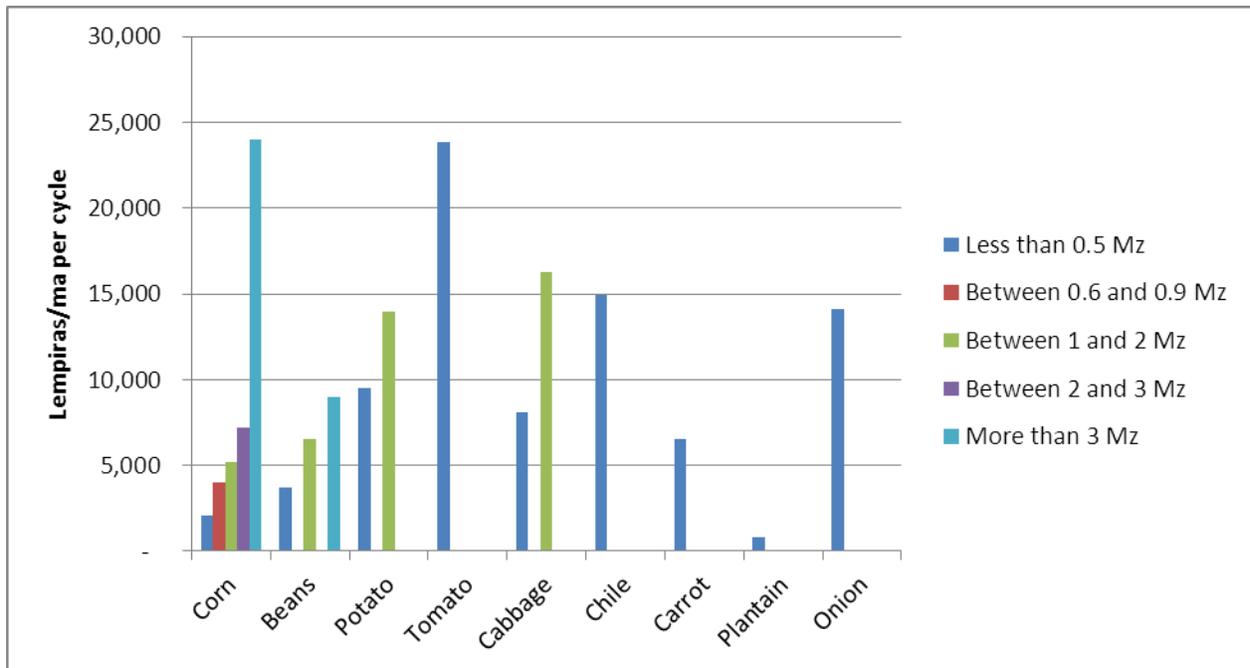


In the survey, earnings were measured as an average estimation of income per “manzana” (equivalent to 0.7 hectares) for each of the 12 crops, 10 high value crops, and 2 basic grains (corn and beans). Farmers with planned production dedicated a significantly higher percentage of their farming to higher-earning crops versus basic grain production, 75% compared to 57% for the overall sample. Of particular interest is the difference between high-value (fruits/vegetables) crops and basic grains: in the former, participation in a production plan correlated with higher earnings (12.3% higher), which was not true in the latter.

Analysis Related to Farmers’ Earnings

When we segmented producers into five categories of landholding levels, we see interesting correlations according to crop and landholding that reinforce a commonly stated belief among experts that basic grains as a commercial crop are significantly more competitive at the higher landholding levels, whereas small plots of horticultural crops can be quite lucrative. These earnings per crop were shown only when the answers were statistically significant—hence in some cases only the smallest landholding responses are shown. Even with this limitation, however, a clear pattern emerges in which corn (and beans to a lesser degree) producers’ earnings are highly dependent upon having larger landholdings; whereas high-value vegetables such as pepper, onion, tomato, cabbage, and potato are profitable even at the lower landholding sizes.

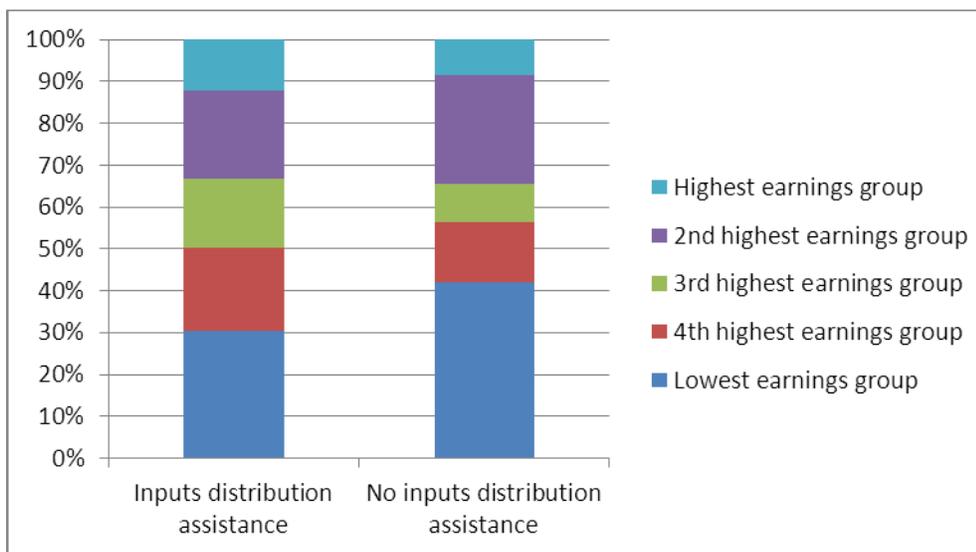
Figure 16. Earnings per crop according to landholding size



Note: For this analysis and the following three graphs, net earnings groups are measured in Lempiras (Lps) per manzana per planting cycle and defined as follows:

- Highest earnings group = more than 30,000 Lps or \$1,500
- Second highest earnings group: 13,000 to 30,000 Lps (\$650 - \$1,500)
- Third highest earnings group: 8,000 to 13,000 Lps (\$400 - \$650)
- Fourth highest earnings group: 4,000 to 8,000 Lps (\$200 - \$400)
- Lowest earnings group: Less than 4,000 Lps (\$200)

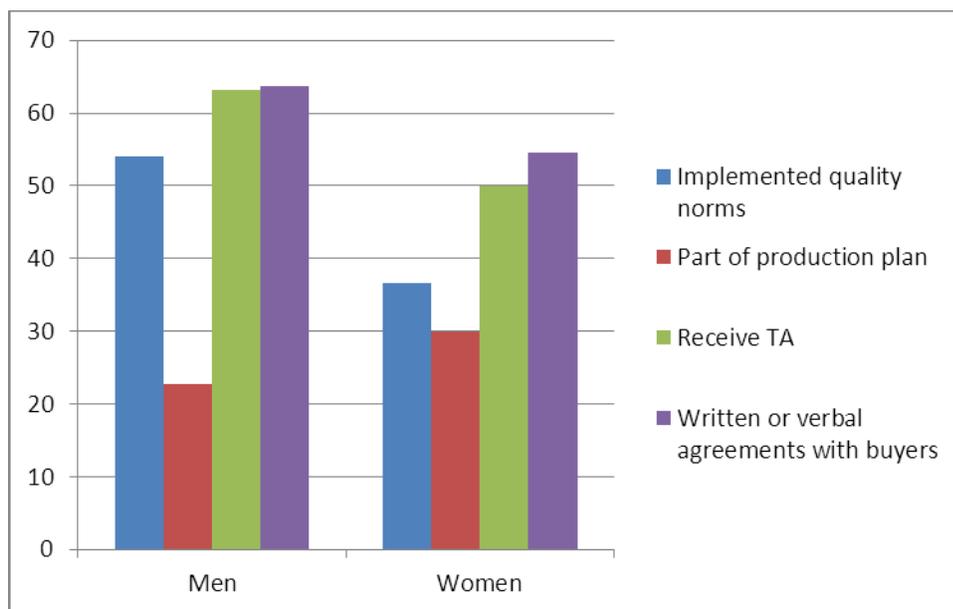
Figure 17. Inputs assistance and earnings



We see a mild correlation between a producer’s reported per-season profitability and their access to assistance in acquiring inputs: those with no such assistance are clustered in the lowest earnings group and under-represented in the highest earnings group; though they also are over-represented in the second highest earnings group, suggesting the correlation is not strong.

Gender Analysis

Figure 18. Access to TA, quality norms, and production planning by gender



This chart shows that men as a whole are considerably more likely than women to implement a program of quality standards on their farms, to have access to TA, and to have verbal or written agreements with their buyers, hence suggesting gender inequality in the availability of some agricultural services. However, women are more likely to be part of a production plan. Men and women were equally likely to be a member of some form of grouping or association (not shown in chart). The small sample size of women (which is due to the fact that only the principal interviewee’s gender was recorded) must be noted here: these observational findings are not statistically significant, but are nonetheless instructive for this exploratory study.

IV. Observations on Market Systems and Sustainability

The U.S. Government (through USAID as well as the MCC) has invested significantly to support the Honduran agricultural sector over several decades. Over the past 12 to 15 years, in particular, the focus has been on inclusive, but commercially viable agriculture, driven by market opportunities, but focused largely on production systems and market linkages. This study was not in any way an evaluation of these projects. Nonetheless, for the purposes of the study’s objectives, it is instructive to examine the general characteristics (without attempting to judge “success”) of this assistance and identify elements of it that must remain in the local market system without indefinite need for donor assistance, if the long-term impacts of such programs are to be realized and sustained over time. The two critical elements of USAID and MCC programming over the past 15 years are:

- **Technical assistance to producers:** USAID and MCC projects tended to focus on improving market-led production systems for dedicated horticulture growers, as well as growers who diversified from basic grains to horticulture technical assistance. This included a wide array of “agricultural best practices” and focused on integrated farming systems (for example, staggered production techniques, pest control, use of quality inputs and irrigation, and post-harvest handling) so that it could be applied to a variety of crops.
- **Market linkages:** The market linkage aspect of USAID and MCC programs included two elements: 1) the facilitation of new or improved relationships between buyers and growers; and 2) the calendarized programming of crop planting, harvesting, and marketing, serving as the go-between for supply and demand.

The challenge of this study is how to engage local commercial or “sustainable”⁶ actors to ensure that these two critical elements of past programming are *embedded* into the market system as a whole. By focusing on these two critical roles, we are able to identify examples and cases in which these roles are indeed sustainably provided by market actors, evaluate the replicability of such examples, and assess ways in which future programming could support further progress in this direction. The study does not go into detail on the many aspects of a sustainable market system that fall into more “public goods” categories, (for example, roads, large-scale market infrastructure, public extension) beyond the reach of the private sector. The exclusion of such elements from the scope of this study does not imply they are of lesser importance.

This exercise in identifying the ways in which these two roles have been embedded (at least somewhat successfully) into the Honduran market system, will be separated into two analyses depending on two different scenarios: first, in regions of Honduras that are ready for “graduation”; and secondly in “first generation” regions of the country.

“Graduation” Regions

The six western departments of the country that were the focus of this study, and where several generations of USAID and MCC projects have focused, is a clear example of a “graduation region.” Several observations about these regions emerge from the interviews with intermediaries and other market actors:

- The public system is essentially nonexistent: there are some GOH departments within SAG that are currently providing very limited TA to some sectors, and are exploring partnerships to expand this. However, and irrespective of one’s position vis-à-vis the ideal role for the state in providing extension services to farmers, it is generally accepted that the public extension system does not hold promise within the short or medium term of directly providing significant assistance to farmers. This fact is important because it elevates the goal of embedding this role into the private market system to an urgent one.
- Traditional fee-for-service models with explicit out-of-pocket payments by farmers do not seem viable. One-on-one extension to farmers by third party extension providers is extremely cost-intensive; its return on investment is a long-term one; and paying through explicit, out-of-pocket fees does not fit with most farmers’ cashflow realities (they tend not to have cash prior to sale of cash crops) or risk profile (since this cost is a risky expenditure that might not lead directly to increased income or even pay for itself). This is thus untenable as a model for small-scale farmers.

⁶ Understand that some non-profit actors may not be 100% sustainable yet, but have potential and are moving in that direction. The term also is meant to encompass appropriate delivery of public goods by the Honduran public sector, if and when this becomes a viable option.

- Embedded extension services in existing commercial transactions are more promising: by including the cost of extension services within the price of crop sale, the cost is both postponed until the time when farmers have more cash available, and it is tied more closely to the success of the harvest (and thus “feels” less risky to the farmer).
- Some sort of cost sharing is more promising: because of the cost intensiveness of extension and technical assistance, models that share this cost between interested actors appear to have promise. Promising models have included cost sharing of TA between individual farmers; producers groups or associations; buyers; inputs dealers, wholesalers, and manufacturers; banks and microfinance institutions; and market-led NGOs (that is NGOs that are at least attempting to ensure their services are provided on a commercial basis).
- Successful models among formal buyers tend to favor “light” extension. Not surprisingly, commercial actors who agree to pay for part or all of technical assistance costs to producers tend to favor lower cost models. This can mean occasional farm visits that involve guidance and problem solving but stop short of hands-on, step-by-step instructions and are lower cost; or it can mean group trainings. The results of the quantitative study suggest that in some cases these lighter, more cost-conscious models can correlate to more positive results (such as a tendency to be part of a production plan, or adherence to quality standards, or even higher earnings) than no TA at all, though they typically correlate with less positive results than access to individualized TA.
- There is a “virtuous circle” effect of market demand, in that increased high-value opportunities will create incentives for investing in quality, and a more profitable, modernized agricultural sector will increase demand for sustainable, commercially driven extension services.

“First Generation” Regions

The southern municipalities of the department of Yoro, which was also a focus region of this study, where horticulture production remains the exception and where most poor producers are focused exclusively or predominantly in subsistence or low-margin grains production, is a clear example of a “first generation” region. In such regions, the lack of previous donor focus means that an initial foray by USAID would likely necessitate a more hands-on approach to upgrading significant numbers of producers to the point at which the roles highlighted in the previous sections can be sustainably embedded into commercial transactions. As noted below, there are important considerations in terms of the need for public goods such as TA to producers below a threshold of commercial viability. Without some sort of public investment it is difficult to envision the private sector engaging with or building up the capacity of unprepared farmers.

Furthermore, in first generation regions, few actors are currently playing the two identified roles of TA and crop production planning, given the fact that the principal crops are commodities in which few incentives exist to demand quality, and in which cost is the driving force.

Where there is such service provision, there remains a critical lack of trust that can lead to foregone opportunities. For example, corn buyers who offer land preparation services and inputs on credit are often assumed to be predatory in nature, rather than commercial partners adding valued services not available elsewhere. The source of such mistrust is not clear—some combination of lack of transparent weighing and pricing mechanisms in the past seems to have played a role—but it clearly benefits no one. Producers assume they are being exploited and thus are reluctant to explore new growth opportunities, while buyers look outside the region for less suspicious suppliers. More competition among buyers and continued progress in the realm of transparent market information might help to balance the market dynamics, and simultaneously address lingering suspicions of exploitation.

V. Successful Models

Successful Models in Graduation Regions

There are several illustrative examples in these regions as well as in other regions with similar characteristics and thus informative for the purposes of the study. Some developed organically and others through some form of international donor cooperation, that illustrate some ways to ensure sustained participation and success of small producers in higher-margin market opportunities without (or with steadily declining) need for an ongoing subsidy. These examples highlight the ways in which the two roles of TA and calendarized crop production planning can be taken care of through the private sector. We highlight four such models here; see Annex 3 for more complete case studies, and see Annex 4 for a matrix of characteristics of each model. All have elements of a sustainable approach that could potentially be replicated—yet each model is unique in several aspects:

- In terms of the profile of the buyer: DOME is an exporter; Omar Sanchez is a rural intermediary; ECARAI is a farmer-based organization; and La Colonia is a supermarket
- In terms of the “governance” of the model, which also dictates the leadership of the crop production planning: led by the exporter in the case of DOME; a balanced structure in the case of Omar Sanchez in which the broker plays a facilitating role between production and buyers; a farmer organization-led model in the case of ECARAI; and a donor/NGO-facilitated partnership model in the case of FUNDER
- In terms of TA provided: paid for and embedded in the export transaction in the case of DOME; lightly facilitated with buyers by Omar Sanchez and ECARAI, with some additional guidance from Omar himself; and carefully planned and embedded into a multi-dimensional risk sharing partnership in the case of FUNDER

Models with elements for replication

DOME Exporters: DOME is a Honduran family business that exports fresh produce such as eggplant, okra, squash, plantain, and various Asian vegetables to the United States. In the past, DOME received technical assistance through the EDA and RED projects funded by the US G. DOME has formal contracts with 238 farmers, and agrees to purchase 100% of the production. DOME programs the planting of each produce and organizes the harvest. It provides free transportation to the processing plant and employs three agronomists to provide free technical assistance, which includes regular visits to farms, training in good agriculture practices (GAPs), and monitoring of pesticide usage, and make sure each farm is on track to supply the volume and quality expected.

ECARAI Farmers’ Union: ECARAI, a farmers’ union of 13 cooperatives whose 600 members grow vegetables and potatoes in Intibuca, is one of the more successful examples of a farmer-based organization (FBO) taking the lead in linking smallholder farmers to markets. ECARAI links its members to major supermarkets in Honduras, including Hortifruti/Walmart, La Colonia, and La Antorcha. ECARAI sold approximately 24 million Lempiras (over US\$1 million) in the last year. ECARAI organizes

An ECARAI employee weighs, packs members’ produce.



the farmers' planting and harvesting schedules to ensure the production of demanded quantities, and provides washing, packing, and collection services. ECARAI does not currently have its own agronomists or technicians; instead it facilitates TA from La Colonia and Hortifruti who send agronomists to farms to supervise and monitor the crop production process. Their success is largely due to their ability as a farmer-based and owned organization to professionalize, while remaining member-driven rather than donor-driven. The long time horizon and investment needed to accomplish this makes replication challenging.

FUNDER, La Colonia, FHCOSA: FUNDER (Fundación para el Desarrollo Empresarial Rural) is a local NGO that is part of an alliance with Supermercados La Colonia and FICOHSA to link farmers to market while facilitating their access to credit. Due to the profile of the clients and unsecured loans, the bank (Fihcosa) required risk sharing from the other two organizations (20% FUNDER, 20% through warranted purchase contracts from La Colonia, and 60% contribution from the bank). This model began with 89 farmers and grew to 450 farmers and has grown to US\$750,000 (in annual sales), and has been replicated with another supermarket (La Antorcha) and Cadelga, an inputs supplier. To be successful for market timing, a specific production calendar is essential and is based on weekly targets proposed by La Colonia and approved by FUNDER. The latter assumes all responsibility to assign and implement the plan with the farmer groups. FUNDER is a not-for-profit organization, but to achieve a sustainable assistance model they take a commission on every commercial transaction and also enjoy a return from the arrangement when successful. The FUNDER business model is solid in terms of risk reduction and financial returns. However, the actors involved are of a very particular profile and could even be considered unique nationally. If any of these actors decided the fund is not suitable, replacing that actor would pose a big challenge, and this also puts a limit on replicability.

Omar Sanchez: Omar Sanchez is an individual rural broker who “started small” and now owns four trucks for transporting plantains from 19 farmers to supermarkets and second grade plantains to local wholesale markets. He maintains written contracts with each producer. He oversees and programs planting and harvesting with his suppliers. Although Omar does not hire specialized agronomists, he does provide some direct TA overseeing the crop production. All of the farmers in his network follow a Good Agricultural Practices (GAP) manual that was provided by the MCC EDA project. Omar is an example of a broker who, despite his modest beginnings, has built a trust-based relationship with preferred suppliers. The main challenge to replicate Omar's business model is that the majority of informal brokers lack long-term vision and engage in more opportunistic and rent-seeking behavior, rather than cultivating a base of trusted producers and clients.

Successful models in first generation regions

Despite the challenges mentioned in section IV.B, some examples do exist that contain elements for replication. One example cited here (and further detailed along with other models in Annex 3) is Andres Carvajal, an individual corn dealer in Yoro, a fairly all-inclusive model for provision of inputs and additional services to farmers—despite the downside of the existence of a monopoly. In addition to this model, several other organizations contain interesting elements for replication but are not profiled in Annex 3. One is CARNEL, a formal producers' association that has partnered with several donor projects and works with 385 diversified (corn plus plantain and yucca) growers in the region, providing or facilitating access to inputs on credit and offering an alternative to Andres Carvajal's model. Another is the system of Local Agricultural Research Councils (CIALes) linked through the Foundation for Participatory Research with Farmers of Honduras (FIPAH) and *cajas rurales*. This system of relationships, though limited in scale due to the local nature of the model, is attractive in that it provides a value added to locally produced grains and harnesses the power of community volunteerism to provide mentoring and even some technical services to participants. The involvement of the *cajas rurales* helps put locally

mobilized savings to productive use and adds another element of time-tested local structure to which commercial actors can link.

Elements for replication: Andres Carvajal

Andres Carvajal, a corn dealer, buys from 100 farmers totaling more than 1,000 m² of land. He provides assistance in meeting quantity and variety through land preparation and fertilizer distribution services. These expenses are charged to the producer at the end of the harvest when buying the product. Previously, Andres provided direct technical assistance, but more recently developed an alliance with two major actors in the supply chain for inputs: Monsanto for seeds, and Bayer for fertilizers and pesticides. In addition, these companies committed to hiring six technicians to provide technical assistance to the farmers. The greatest challenge to the business model is that it is a monopsony in which both Andres and the farmers know that farmers do not have other viable market options, which breeds mistrust. Replication would increase competition among buyers and thus expand options and could improve the model.

VI. Suggestions for Sustainable Market Systems

Guiding principles

Contributing to the conditions for a sustainable and “self-upgrading” market system requires starting with some basic premises.

- The path to sustainability must be **market-based** and private sector oriented.
- It is essential to recognize that when discussing higher-value opportunities **for food insecure and vulnerable families**, commercial actors will only be able and willing to step in under certain circumstances. A question beyond the scope of this study is how to approach those producers without the basic levels of knowledge and skills to participate in higher-margin production systems.
- The key is to identify and expand ways of embedding **two key roles** that donor projects have played (extension/TA and crop production planning) into the market system.
- The vision—beyond simply upgrading and linking producers—is that once a robust and competitive market exists, small farmers can remain in, and more can continue to be integrated into growing value chains **without continued intervention** from donors.

Key Interventions for a Sustainable Market System

In general terms, a sustainable market strategy will require a facilitation approach. USAID in its value chain work has pioneered the facilitation approach to project implementation, which attempts to achieve sustainability by “stimulating change in market systems without the project taking a direct role in, or becoming part of, the system. Practitioners and donors using this approach try to minimize direct provision of goods and services by the project—focusing instead on increasing the local availability of needed goods and services.”⁷ In addition to following a facilitation approach, several other key elements and strategies emerge as crucial to the goal of effecting sustainable and long-lasting change in the market system. These are presented here:

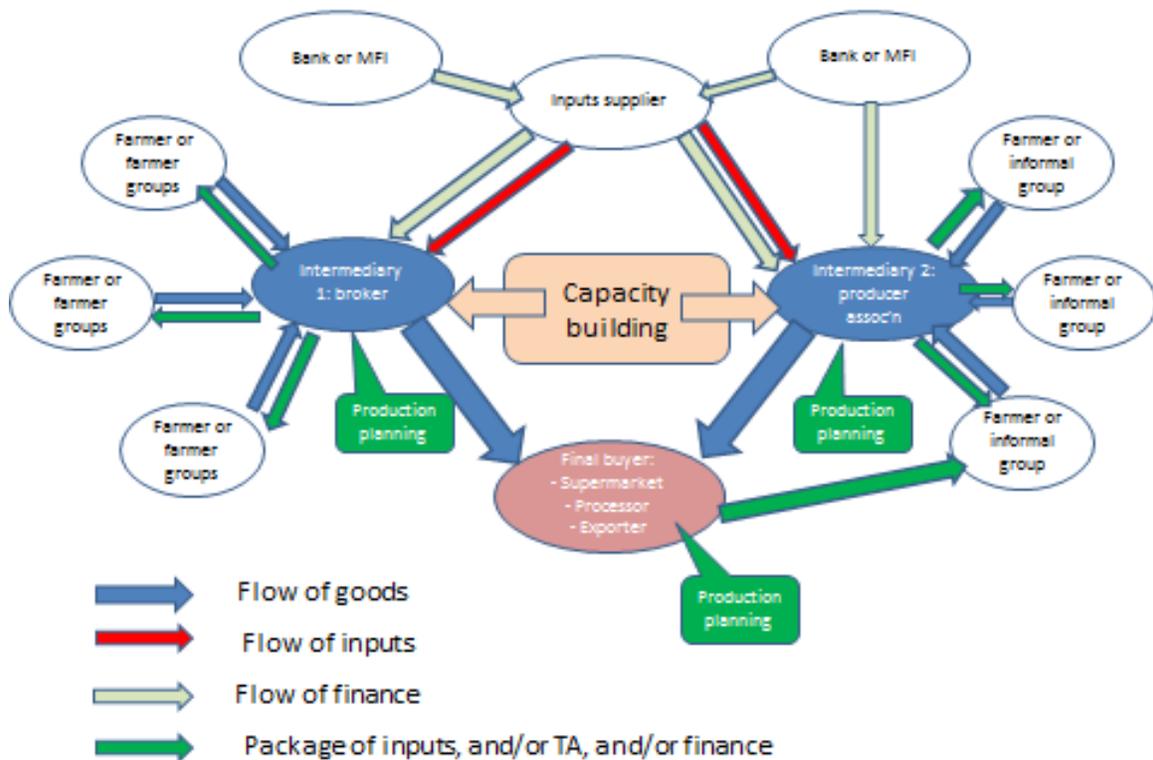
- **Expand alliances with and between the private sector:** The most successful and promising models of embedding services and planning within local market systems involve strategic alliances of some kind—and in many cases they involve explicitly sharing the costs of additional services and

⁷ Downing, Jeanne (USAID) and Campbell, Ruth (ACDI/VOCA) Briefing Paper, “Understanding Facilitation”

even sharing the downside risks of failure. This trend is supported by an increased attention worldwide to such models of cost- and risk-sharing among private sector actors, the public sector, and donors. (See Figure 19 below) Among the actors most likely to have the proper incentives for such alliances are:

- Large buyers such as **supermarkets and exporters**, who buy products with high-quality standards and consistent volume requirements. The study's findings with regard to the current outreach of the formal buyers highlights an opportunity to replicate existing alliances with supermarket chains: their relatively modest current market share vis-à-vis informal intermediaries suggests room for growth; the fact that a potential supplier's land size is not a critical obstacle means that this opportunity is viable for smallholders; and finally, formal buyers' demonstrated willingness to invest in quality makes the opportunity more attractive to USAID.
- **Input and equipment suppliers**, who are often overlooked players when examining the possibility of strategic alliances. Their role in provision and financing of inputs is substantial; potentially, their incentives could align in such a way as to interest them in sharing the provision of TA to producers. Finally, they can play a limited role in crop production planning, as focal points for planned purchases of inputs at the proper time.
- **MFIs, banks, and cajas rurales** with successful "triangulated" lending arrangements in Honduras, in which loan payments are deducted and collected by the buyer at time of sale; these models lower risk for credit providers and thus increase the likelihood of lending. Such models hold promise for higher-value chains in which significant cash outlays (for high-quality inputs, mostly) effectively crowd out those producers without access to cash at time of planting. Because much of horticulture farmers' financing needs are for quality inputs, alliances with inputs dealers such as those in the FUNDER/Cadelga and Andres Carvajal/Monsanto models have a particular relevance. As findings indicate that some form of farmer grouping increases access to input credit, USAID should coordinate its support to farmer grouping with any such triangulated lending arrangement pilots.
- **Mobile service providers** to facilitate payment of small amounts from buyers to producers, and disseminate market information and tips on good agricultural practices.

Figure 19. Illustrative Strategic Alliances



- **Effective farmer grouping**, along the spectrum of formality: when discussing integration of farmers into higher-margin value chains, grouping is one of the key prerequisites. Although both public and private actors may have differing opinions about the ideal profile and role of a producers group, from the least formal groupings to the most formal associations, all agree that the role of grouping is an essential one for reducing costs and facilitating access to inputs and effective market linkages. These differing opinions are rooted in the vast disparity in success rates of more formal association (and in particular, cooperative) formation and strengthening, and the substantial investment in cost and time even in the most successful cases. For this reason, in future programming, USAID will need to recognize the challenges inherent in producer group formation and strengthening, ensure they do not repeat the mistakes of the past, but nonetheless contribute to improvements in the ways in which producer grouping structures of different kinds can enable upgrades. Ways to achieve this balance would be:
 - In terms of formal structures (cooperatives, producer associations, and so on), identify and **strengthen high potential existing groups**—but only when there is a clear market rationale for their existence (for example, when a buyer expresses a preference to deal with the formal group structure, or when the group can develop marketing capacity to identify new opportunities for members). USAID resources will be insufficient to see efforts to create new associations through to the end objective, given the extensive capital, expertise, and leadership requirements over many years. Focus mostly on building management capacity. Rather than expensive infrastructure or new staff, many high potential groups need most assistance in the areas of management, to enable professional leadership capable of looking out for member

interests rather than chasing grant opportunities at the expense of a long-term member-driven vision. Several training curricula focus on this and could be used as tools in such efforts.⁸

- **Build value adding service capacities of identified groups and associations**—in particular, TA, access to input, and crop planning. Groups and associations are well-placed to offer variations on these services, on a case-by-case basis. For example, groupings with strong capacity and a certain scale might consider directly providing group or individualized extension services on a cost recovery basis (either through fee, commission on sales, or membership dues, or some combination of these mechanisms); it may make more sense for other groups to link up with a buyer, organize their members, and explore cost-sharing mechanisms for paying for extensionists, either individualized or grouped. Above all, care should be taken to encourage creative models while ensuring that such services are sustainable.
- **Upgrade and link *cajas rurales*** and other localized groups to people and firms up the value chain. These groups, with their hyper-local profile, generally have developed trust over many years and can be an effective mechanism to link entire communities to market opportunities. Care should be taken not to overload such groups with new functions, rather respecting their own pace and capacity and focusing on their ability to link to other entities rather than taking on new functions themselves. USAID should thus proceed slowly in linking these groups, adding on “layers” of services and roles only as quickly as the *cajas rurales* demonstrate capacity and commitment, and only as long as such services do not distract the *caja rurales* from their primary goals. Although larger and more developed groups will explore various models of service provision, *cajas rurales* as a rule will be best fitted to linkages and strategic alliance models in which groups outside the community supplement the *caja*’s local knowledge and community linkages.
- **Technical assistance/extension** emerges as a key service that is well appreciated for its value, but for which few models of commercial viability exist. In addition to group or association-led models for TA provision, discussed above, other creative ways to pay for this vital service are needed. This often will include cost-sharing strategic alliances among intermediaries, buyers, processors, inputs suppliers, and producer groups/associations. USAID’s role as neutral third-party facilitator is extremely valuable in structuring such initiatives initially, soliciting commitment, piloting, and then gradually withdrawing and allowing the market to either continue or discontinue based on success.
- Identify and directly support **local and regional brokers** with a long-term vision (interested in long-term business models rather than short-term maximization of profits or rents), which could lead to a new category of local private actors with the capacity to step in to provide these services. In particular, the finding that intermediaries use verbal agreements widely (as opposed to pure spot market transactions) suggests that there is potential for establishing calendarized production systems with a network of suppliers. To achieve this, USAID could provide:
 - Training on how to program crop planting and harvesting according to market needs,
 - Training on provision or facilitation of TA or light agronomic guidance
 - Linkage with buyers, inputs suppliers, and farmers’ organizations so intermediaries can begin to be a go-between and coordinating body in the value chain
 - Link them to appropriate sources of finance to increase their liquidity and, if necessary, allow them to provide inputs on credit to farmers
- **Further improve transportation options**—but “do not fix what is not broken.” When analyzing the viability of smallholder participation in more lucrative market channels, transportation—or lack thereof—is a crucial factor. The fact that intermediaries tend to go to producers’ farms to collect the produce is a major competitive advantage for them vis-à-vis

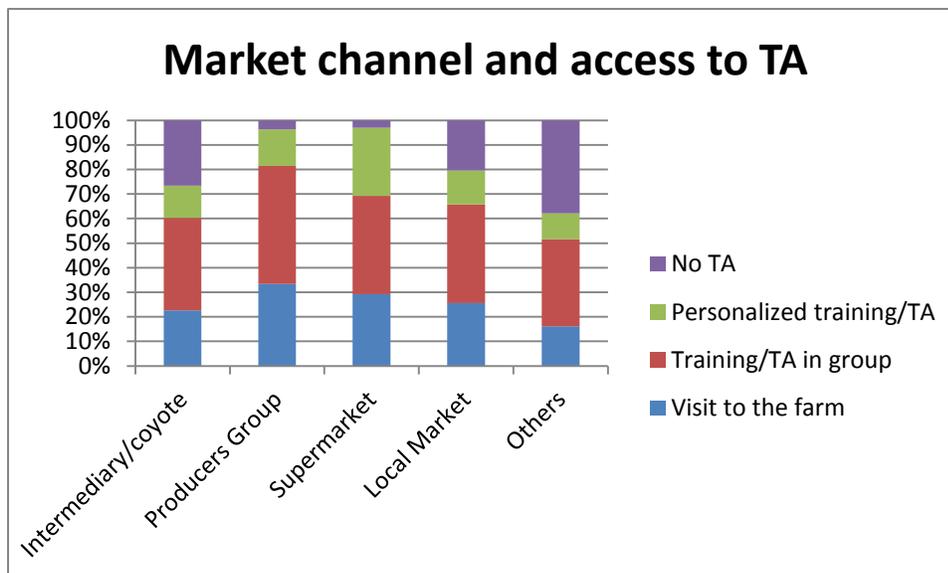
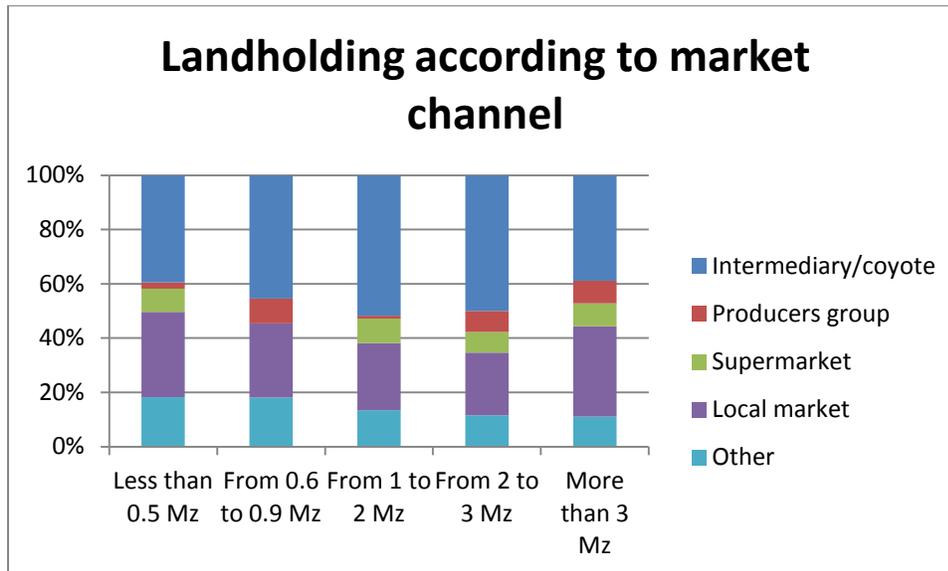
⁸ For example, Sell More For More is a training curriculum developed by ACDI/VOCA to help agricultural cooperatives develop value-adding business plans. The ILO also developed My.Coop, a distance learning course meant to help managers of agricultural cooperatives offer high-quality, efficient, and effective services .

supermarkets, exporters, or producer associations. A segmented transportation services market has evolved: fletes for those who can pay to comply with supermarkets' demand for delivered produce, and a transportation service provided by intermediaries as an additional service. Rather than focusing on creating new transportation links, then, USAID should consider transportation providers as potential participants in capacity building efforts, focusing on quality of service (packing, storage, handling) and new market linkages (linking more to smaller producer groups, for example). In this way, transportation providers could be a missing link for smaller, less connected producers to service higher value or more stable market channels. In the status quo, such producers must choose between a lower value/less stable option with transportation, and a higher value/more stable channel that requires linkage with and payment to a quality-focused standalone flete provider.

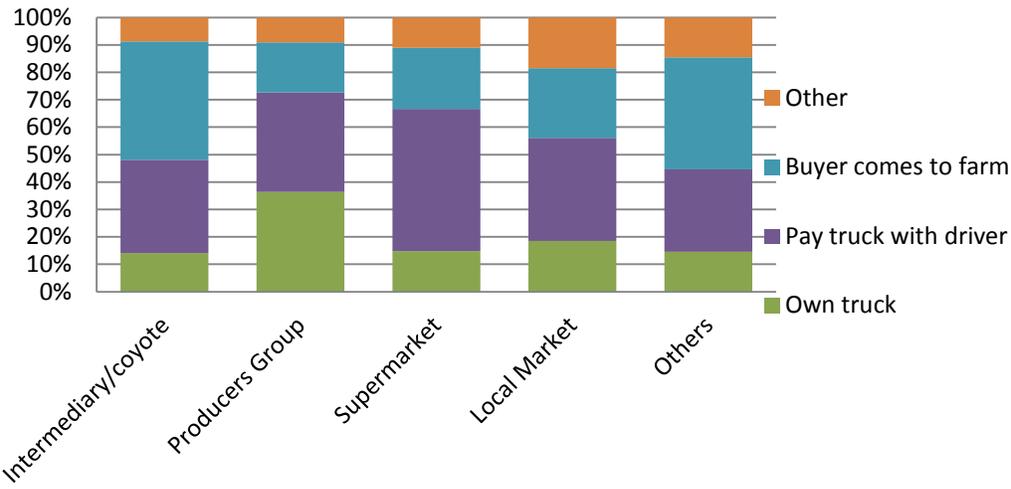
- In “first generation” regions of Honduras, USAID should recognize that horticultural crops do have the potential for significant income gains by vulnerable farmers with small plots, unlike basic grains, for which profitability is highly dependent upon having larger landholdings. Other high-potential crops such as coffee are also important crops in these regions and may hold promise in achieving the objectives of improved food security for poor Hondurans, though they were not part of the focus of this study. These findings, which reinforce commonly held assertions, suggest that in terms of crop selection, USAID should follow a balanced approach in which yield improvements for smallholder farms growing staple crops free up land that can be used for crops with greater potential for income growth.
- Finally, in “first generation” regions, facilitation approaches need to be adjusted to reflect a **Pathways out of Poverty (PoP) approach**.⁹ PoP, introduced as one of USAID’s Feed the Future strategies, envision “push” interventions that work directly with vulnerable populations to get them to the stage of market readiness, complemented by “pull” approaches that use market demand as a graduation pathway. Properly sequencing these interventions is one of the key challenges to PoP approaches.

⁹ See “Pathways out of Poverty” summary briefing paper by USAID and ACDI/VOCA: http://microlinks.kdid.org/sites/microlinks/files/resource/files/PoP_Briefing_Paper.pdf

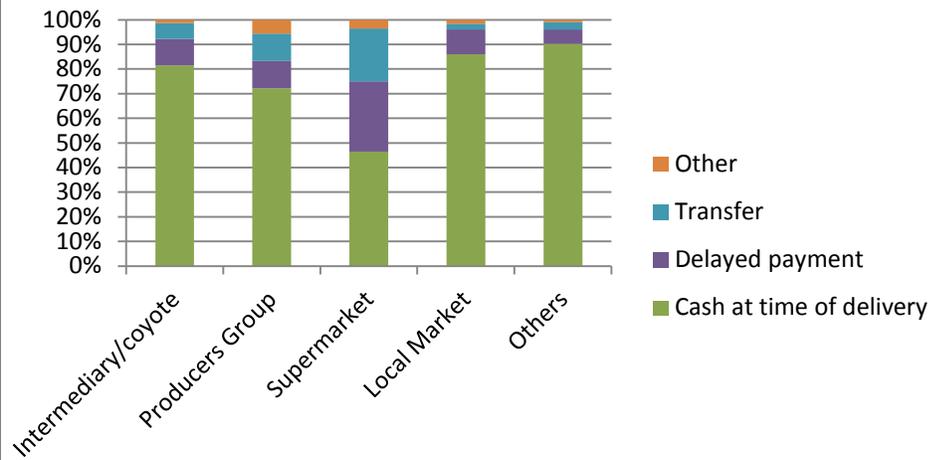
Annex I: Complete Data Analysis Charts



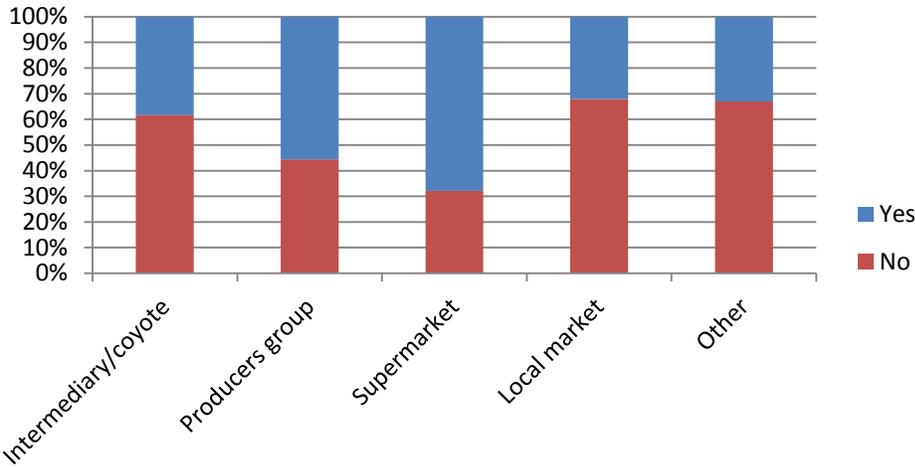
Mode of transporting goods to market



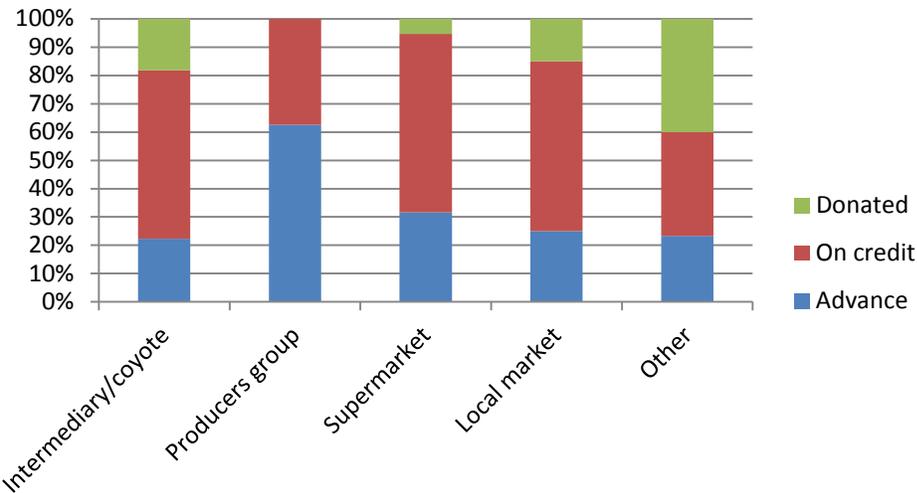
Payment terms

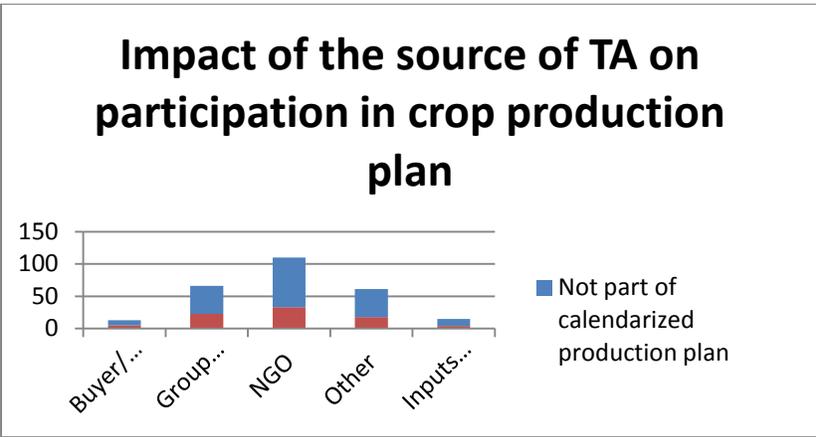
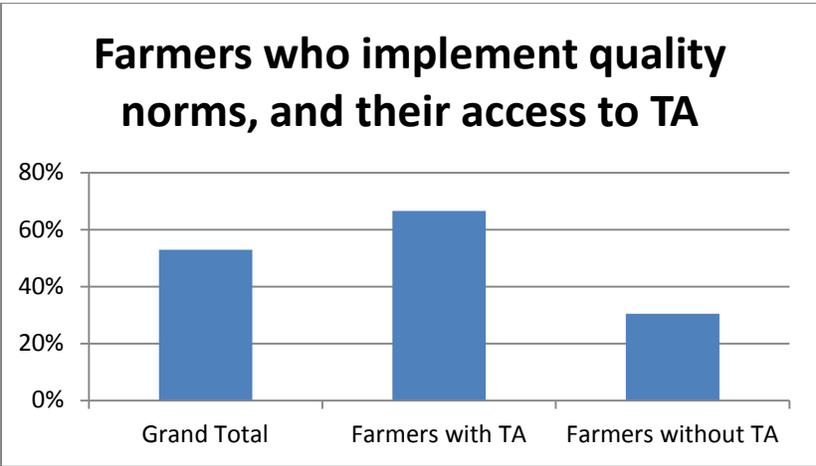
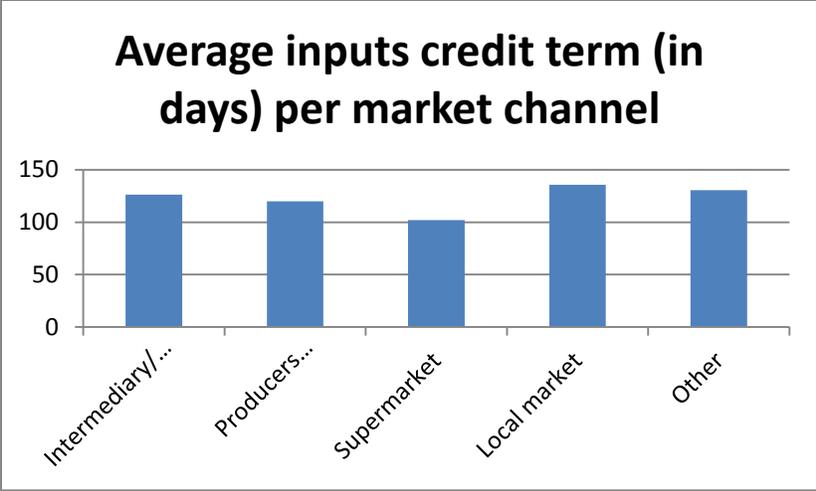


Inputs distribution per market channel



Terms of inputs distribution per market channel

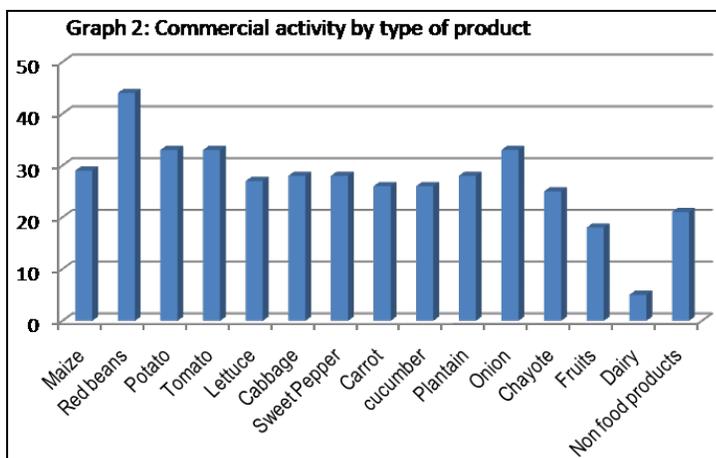
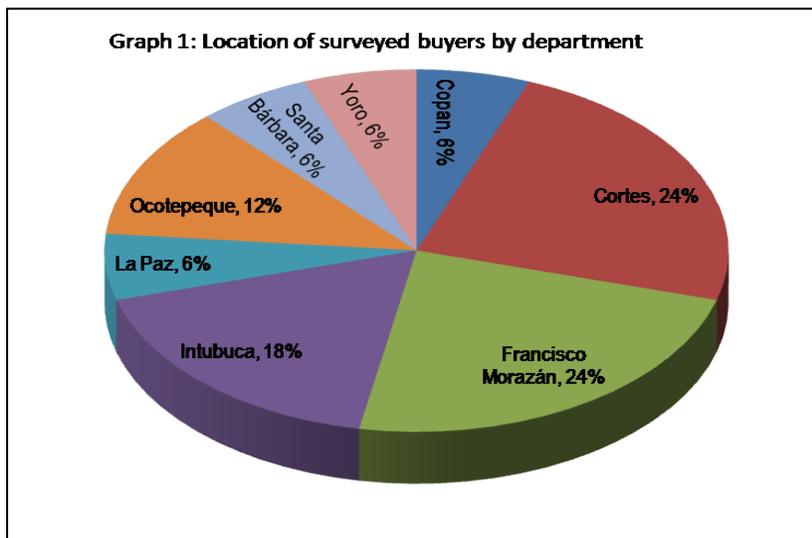


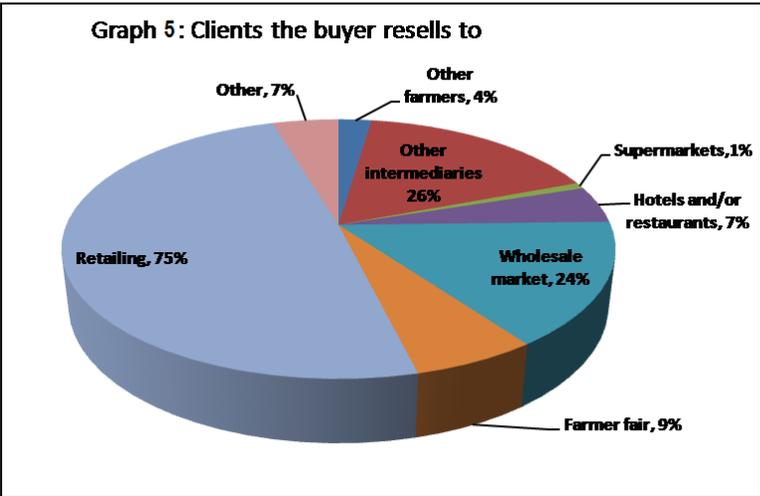
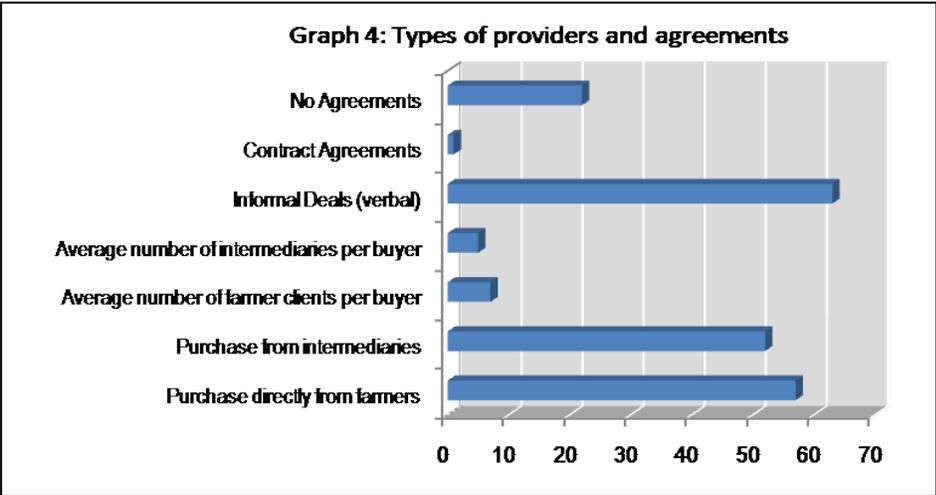
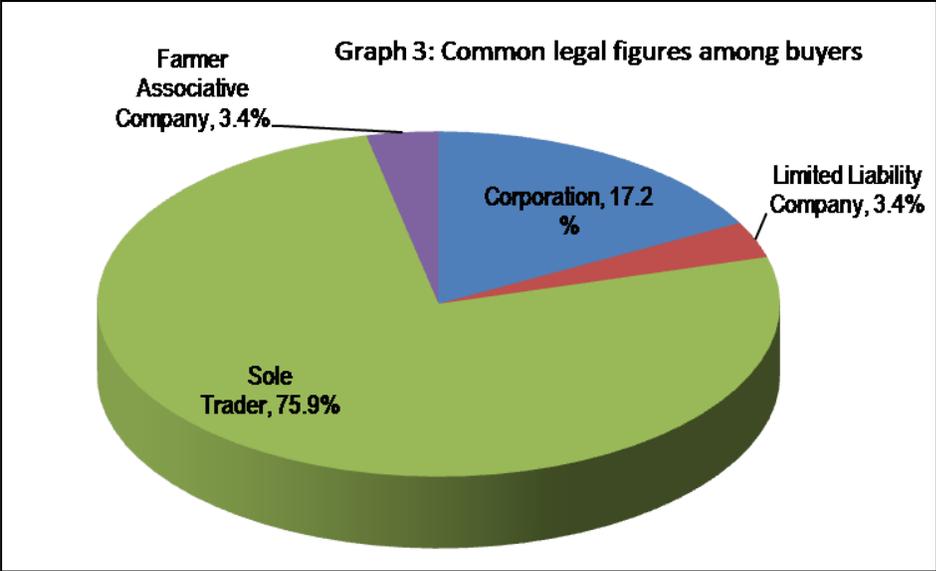


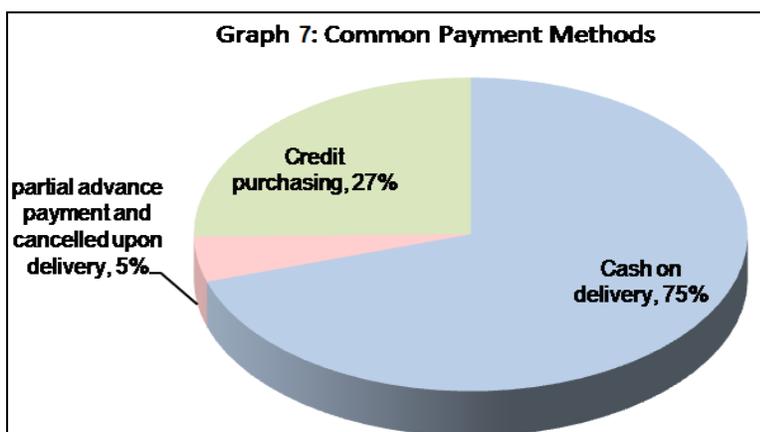
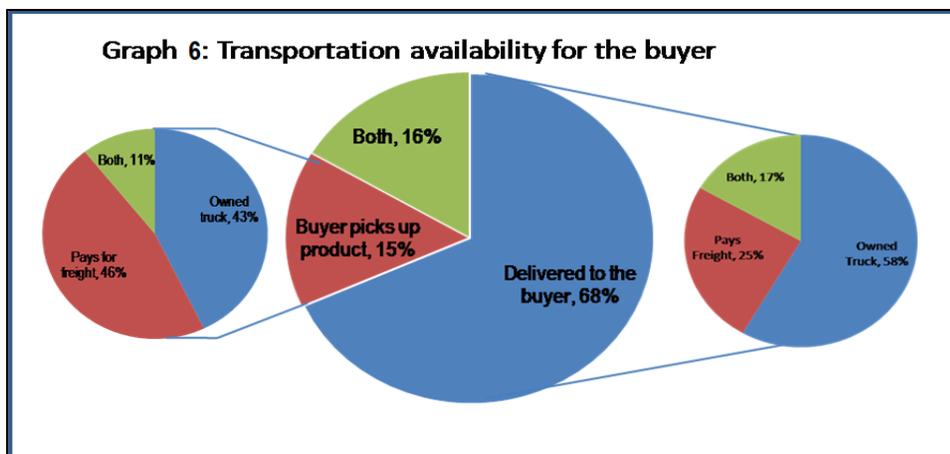
Annex 2: Detailed Findings and Analysis of Broker Surveys

Analysis of survey to intermediaries

This survey was taken from 85 intermediaries in urban markets of nine cities in the western region and Central District of Honduras. All of them do business in local markets—37 in the large regional markets at the cities of Tegucigalpa and San Pedro Sula, 2 at the Farmer Fair in Tegucigalpa, and the remaining 46 work at small city markets. The points of view from these local market intermediaries or buyers are an important complement for the information obtained directly from farmers. These actors have a very versatile role in the value chain; even though they are mostly informal businesses their variety of providers and clientele is evidence of the intricate connection they have with the market. The survey shows that the interviewed buyers purchase an average of five different products—57 buy directly from farmers and of these 34 also purchase from other intermediaries and 5 of them are even producers themselves. Their clientele are also diverse, since 27 of them sell to two or more types of clients and up to six different clients. Graphs 1 to 5 show survey results of the previous assessments:



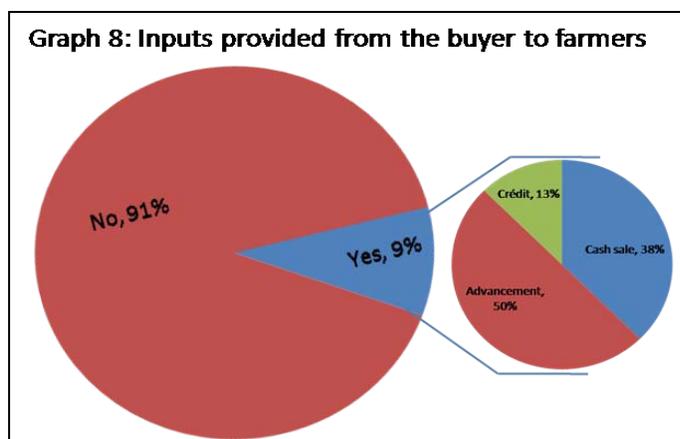




At contrast with the 77% of farmers reported selling to local markets or intermediaries, a high percentage of the intermediaries (68%) said they buy from farmers directly. Transportation of products is an essential aspect for the business between these actors. A logical contrast reaffirms this fact, since 68% of the buyers require the product delivered to them, and in the farmer survey 51% of them take product to the buyer with their own vehicles or hired freight. Graph 6 shows the details of the transportation arrangements for the buyer.

Another important aspect of the relationship between these buyers and the farmers are the payment methods and enticing services the buyer may offer to the farmers. The most common payment is cash upon delivery and then credit in an average term of nine days. Graph 7 shows the three most common payment methods and the percentage of buyers using them.

Enticing farmers into compromising selling situations is considered very common in these informal business deals, usually with advancements before harvest date or by offering inputs, plowing and harrowing services, and other such inducements. Against the prospects however, see Graph 8, only a small number of the buyers said they provide inputs to the farmers from whom they purchase crops.

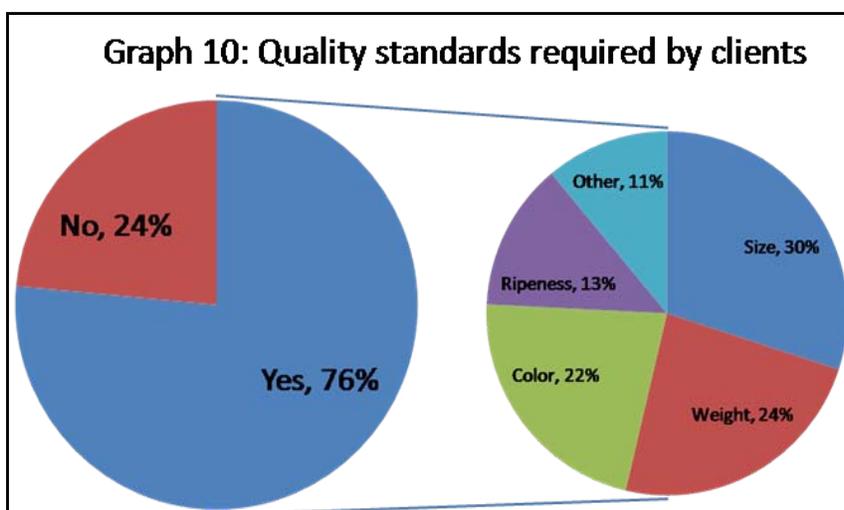
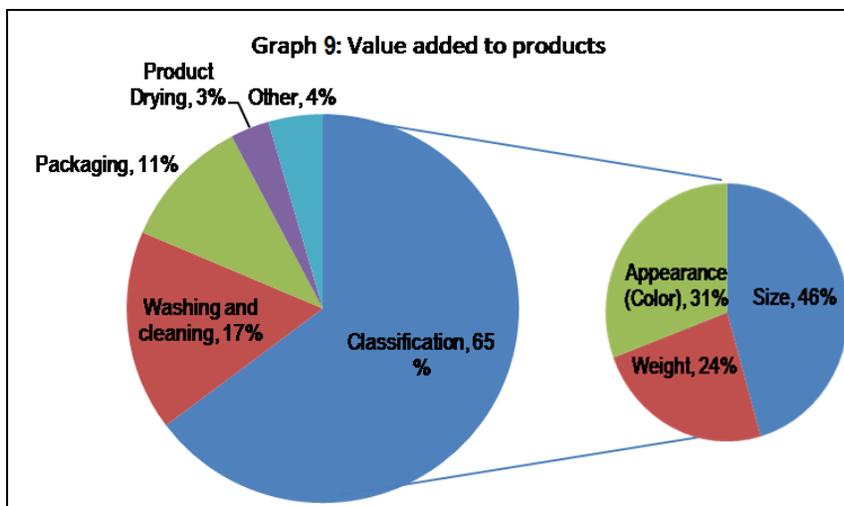


Two questions were introduced in the survey to inquire into the reasons why buyers choose not to or cannot do business directly with farmers and the disadvantages of purchasing from farmers instead of other intermediaries. A third question, on the contrary, inquired about the advantages of purchasing the crops directly from farmers. These questions were open to the option of three different answers from each interviewee and these answers were diverse. For the “why not” questions, a total of 172 answers were given by buyers, but 34 of these (equivalent to 20%) had no relation to the question or were equivalent to a “don’t know” answer. The “why yes” question received 113 answers of which 14 or 12% were equivalent to a “don’t know” answer. To simplify an analysis of the numerous answers to these three questions and in an attempt to extract the essential reasons behind them, they were all divided into five categories. The number of answers and percentage value for each category and the contrast between negative and positive positions toward dealing directly with farmers are shown side by side in the table below.

Table 2. Contrast between negative and positive positions towards dealing directly with farmers

Response	<i>Reason to buy from other intermediary</i>		<i>Reason to buy direct from farmers</i>	
	Number of responses	% of total	Number of responses	% of total
Lower prices and/or payment conditions	32	23%	46	46%
No contact with farmers	12	9%	N/A	N/A
Consistency in delivery and/or volume	23	17%	11	11%
Quality and/or variety of products	21	15%	39	39%
Transportation difficulties	50	36%	1	1%

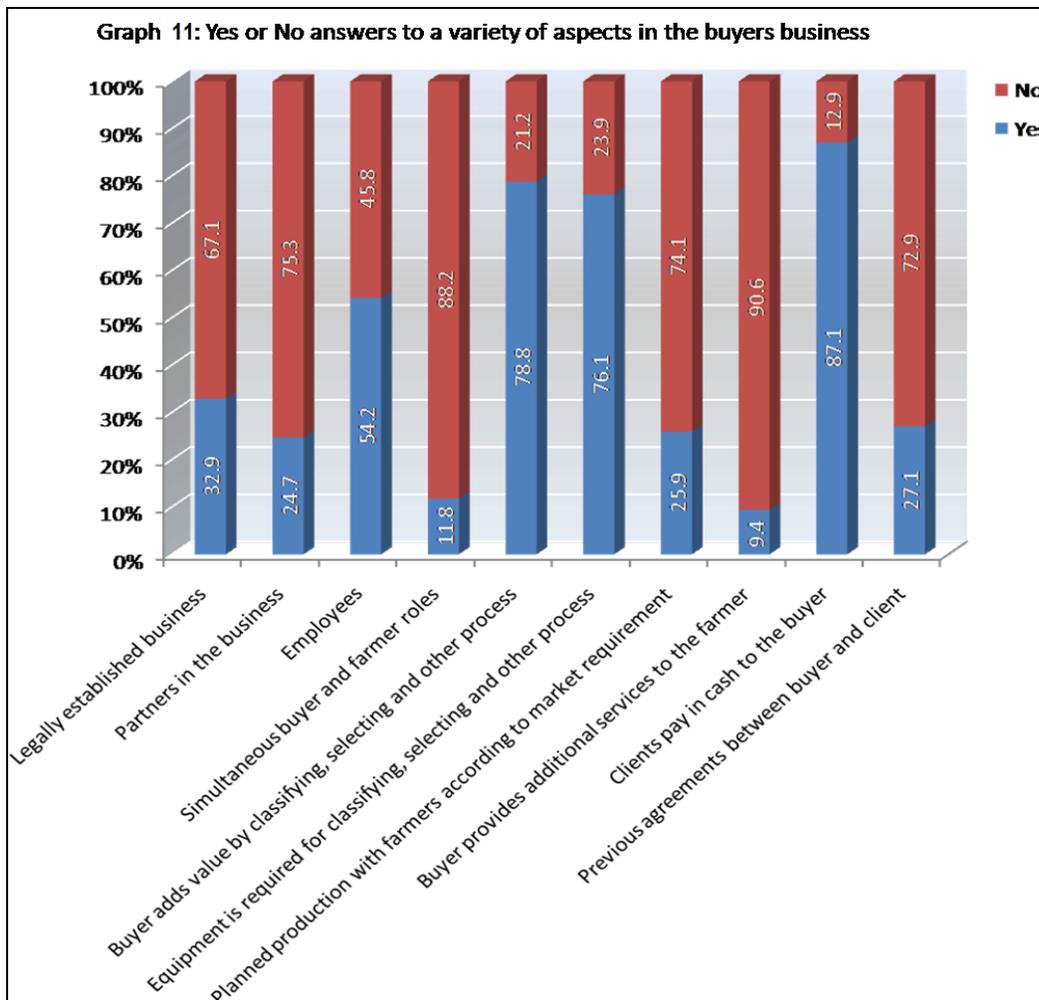
The answers given by buyers show that the most important obstacle in establishing direct business with farmers seems to be transportation difficulties, followed by lower prices and/or payment conditions from other intermediaries. In contrast lower prices and/or payment conditions from farmers was the most popular reason for doing business with them and the quality and/or variety of products was the second reason in favor of farmers, which fell in fourth place on the “why not” side.



Yet another important aspect of this business relationship between buyers and farmers originates from the fact that farmers usually possess little or no capacity to transform or give any added value to their products before reaching the markets. As a result, 79% of interviewed buyers apply some kind of process to add greater value to the products they will afterwards offer to their clients. In this sense Graphs 9 and 10 show the type of processes most frequently applied and quality standards required from the buyers' clients.

The most common process used by 65% of the buyers is classification of product according to (in order of importance) size, appearance and weight. Among all interviewed buyers, 76% of them recognized that some standard is required from their clients and in that respect again size was the most important, followed by weight, appearance (color) and finally ripeness.

An overall view of the characteristics of these 85 local intermediaries or buyers and the way they do business in the agricultural value chains at each of their agriculture markets is provided in the graph below.



As the graph shows, a little under one-third of the buyers have formal businesses and three-quarters of them operate as sole proprietors. Half of them generate jobs but it would be reasonable to think that many of these jobs are at substandard conditions. A very small percentage is dedicated to farming as well as selling the products. More than three-quarters of them use simple processes and equipment to add value to their products. Only a quarter of the buyers try to get involved in planned production with the farmers selling them their crops. Almost none provide any additional services to the farmers. Most of them pay in cash for the products that they purchase. Finally a little over a quarter of these buyers work with formal agreements with their clients.

In an attempt to grasp a general view or self-evaluation of their own business from the intermediaries, two questions were openly made of what works or is good and what seems to not work in their businesses at present. See Table 3 below. For the good views, 117 answers were given, 9 of which were equivalent to a “don’t know” answer. In contrast there were 89 answers of what’s not good in the business, of which 17 were a “don’t know” answer. Again, all the answers were diverse and had to be classified around five different categories to simplify the analysis.

Fortunately, the good views of the business seem to be more proportionately distributed among clients, product, management and income, leaving only a weak number of answers related to the vendor part of the business. The bad views of the business were mostly related to income and profits, which seems curious due to the common preconception that intermediaries always try to make the largest profits in

the value chain and in detriment to the farmers. Keeping in mind that a high percentage of interviewed buyers purchase products directly from farmers, this answer is contrary to the aforementioned preconception. The second most important bad view of the business was related to management in terms of conditions, security, and maintenance of the market installations they work at and also the perception of disloyal competition from other buyers.

Table 3. General perception of what is wrong and what is good about the way they do business

Answers given by interviewed buyers	What is wrong with business	What is good with business
Clients	0	18 (17%)
Product	10 (14%)	32 (29%)
Management	28 (39%)	29 (27%)
Vendors	3 (4%)	2 (2%)
Income/Profits	31 (43%)	28 (26%)

Annex 3: Elements for replication in intermediary business models

The Case of Omar Sanchez

Background

Omar Sanchez is an individual broker who started commercializing small quantities of plantains in Cortes Department 17 years ago using his brother's rented car. Under the former MCC/EDA project, which ended in late 2010, Omar received extensive technical assistance in production, as well as market linkages. Today, he oversees 7 ha of his own production and owns four trucks for transporting plantains from 19 farmers with a total of 34 ha of production, selling weekly 80,000 lbs of plantains to supermarkets and 70,000 lbs (second grade plantains) to local wholesale markets. He maintains written contracts with each producer. He hopes to one day export to the United States. Omar oversees and programs planting and harvesting with his suppliers. Because he focuses only on one crop, the oversight is fairly straightforward and does not require outside assistance. Although Omar does not hire specialized agronomists, he does provide some direct technical assistance overseeing the crop production. All of the farmers in his network follow a Good Agricultural Practices (GAP) manual that was provided by the MCC/EDA project.

Success Drivers

Omar is an example of a broker who, despite his modest beginnings, has remained focused on a long-term vision of adding value through a trust-based relationship with preferred suppliers. He maintains loyalty through ensuring contracts with buyers and through guidance provided in the MCC/EDA manuals. His experience demonstrates that small-scale brokers with a significantly progressive and business-minded perspective can play a value-adding role with a small circle of producers. Although Omar did benefit from donor assistance, including assistance with an irrigation system, this was a one-time activity that enhanced his business. He now represents a commercially driven sustainable model that does not depend on outside funding or ongoing assistance. His producers have gained knowledge of good agricultural practices and solid links to stable markets with formal contracts.

Challenges to Growth

Because of Omar's background as a broker, his technical assistance is not as extensive as specialized expertise. In addition, it is challenging for him to significantly expand his business given his limited assets and expertise, as well as his market limitation to northern Honduras. The majority of his producers lack sufficient capacity to expand their production to meet additional volume requirements of larger markets.

Replication of the Business Model

The main challenge to replicate Omar's business model is that the majority of informal brokers lack long-term vision and engage in more opportunistic and rent-seeking behavior, rather than cultivating a base of trusted producers and clients.

The Case of ECARAI Farmers' Union

Background

ECARAI, a farmers' union of 13 cooperatives whose 600 members grow vegetables and potatoes in Intibuca, is one of the more successful examples of a farmer-based organization (FBO) taking the lead in linking smallholder farmers to markets. ECARAI links its members to major supermarkets in Honduras, including Hortifruti/Walmart, La Colonia and La Antorcha. ECARAI sold approximately 24,000 Lempiras in the last year. They have participated in various donor programs, including USAID and the Dutch Cooperation. ECARAI organizes the farmers' planting and harvesting schedules to ensure the production of demanded quantities, and provides washing, packing and collection services. ECARAI does not currently have its own agronomists or technicians. ECARAI facilitates technical assistance from La Colonia and Hortifruti who send agronomists to farms to supervise and monitor the crop production process.

Success Drivers

ECARAI's success is due to its efforts to commercialize as a business entity while remaining member-driven rather than donor-driven. ECARAI provides multiple options and substantial bargaining power for farmers and maintains relationships with various buyers and thus is less dependent on a single buyer. ECARAI provides a mechanism to increase incomes to farmers through redistribution of profits to members and maintains the trust of farmers given its member-driven nature.

Challenges to Growth

The principle disadvantage in the case of ECARAI is the difficulty in transitioning ECARAI to be a farmer-based organization. ECARAI has had success to date after a long period and investment in dynamic leadership and significant outside support.

Replication of the Business Model

The ECARAI model is sustainable due to the fact that ECARAI is profitable and not dependent on outside funding to maintain its current operations. Furthermore, buyers are pleased by ECARAI's performance, which bodes well for their commercial future. However, the biggest challenge to replicating this experience is that it took extraordinary leadership on the part of ECARAI to overcome many of the common roadblocks to building successful FBOs such as low education levels in rural areas, governance issues and losing sight of being member-driven. The combination of leadership with substantial donor investment and long time periods of investment is difficult to replicate.

The Case of Marco Theodoracopoulos

Background

Marco Theodoracopoulos is an individual exporter of snow peas and onions in La Esperanza, Intibucá Department. Marco focuses on a specific niche of the United States market when there is little competition in October. Marco plans the planting and harvesting with his suppliers to ensure the quantities he needs are available at the precise time. This is crucial given his focus on a specific market window and time period in the United States. Marco currently provides transportation, washing and packaging services, but relies on USAID/ACCESO agronomists to provide technical assistance in the field to his suppliers. He is committed to assuming the costs of this himself when the project ends and plans to hire several agronomists. Furthermore, he has begun tracking the costs of this in advance.

Success Drivers

Marco is an example of an exporter who needs high-quality products to meet his market demand and who thus sees an economic value in ensuring that his suppliers have all that they need to meet quality standards. His past experience with USAID projects has helped foster an appreciation of the benefits of working in cooperation with other value chain actors in long-term, win-win relationships.

Challenges to Growth

Marco's reliance on subsidized technical assistance for his suppliers means that full sustainability is not yet achieved. The post-ACCESO period will determine whether or not the commercial incentive to pay for technical assistance remains.

Replication of the Business Model

The main challenges to replicating Marco's business model are incentives and vision. Because Marco is in the export business, his quality standards are quite high. Brokers in lower value market channels may perceive less need to pay for technical assistance since their quality standards are less stringent. In terms of vision, Marco has a progressive and long-term vision of cultivating and supporting a base of trusted producers and clients, which is due to his extensive experience with donor-funded and market-oriented projects such as CDA and ACCESO. This vision may be a challenge to find in other buyers who have not received such extensive support—but it also highlights the “good practice” in market linkage projects of selecting actors who show a tendency to think of the long-term, and cultivating it further.

The Case of FUNDER: Accessing Finance Through Public-Private Partnership

Background

FUNDER (Fundación para el Desarrollo Empresarial Rural) is a local NGO that has 15 years' experience working in rural development in Honduras. In particular, FUNDER works with grass root farming businesses and represents several potato farmer organizations. FUNDER established a stable commercial relationship with Supermercados La Colonia, the second largest supermarket chain in the country. Both actors were interested in leveraging farmer groups to ensure better quality and quantity of products and sought financial aid from a MCA/ACA designed loan fund with Bank Ficohsa. Because of the profile of the clients and unsecured loans, the bank required risk sharing from the other two organizations and the fund was established with a 20% contribution in cash from FUNDER, 20% contribution with warranted contracts from La Colonia and 60% contribution in cash from the bank. This model is led by FUNDER and began with 89 farmers, and grew to 450 farmers and has grown to US\$750,000. To be successful for market timing, a specific production calendar is essential and is based on weekly targets proposed by La Colonia and approved by FUNDER. The latter assumes all responsibility to assign and implement the plan with the farmer groups. FUNDER also assumes all responsibility for technical assistance and costing budgets for the farmers, but takes advantage of existing development projects and other NGOs that offer technical assistance. The MCA/EDA and USAID-ACCESO projects have been important allies to subsidize technical assistance, especially for newcomers who require intense and more personalized training. FUNDER is a not-for-profit organization, but to finance a sustainable assistance for the groups they take a commission on every commercial transaction and as contributors to the fund, enjoy a financial return from the arrangement when successful.

Success Drivers

The case of FUNDER and La Colonia offers a very unique combination of actors and achieved the commitment of a leading bank to finance a type of farmer that in many ways does not fit their client profile. A very good balance between successful production oriented to a specific market and access to a relatively unlimited source of funding was topped by production insurance provided by the bank. The insurance has a significant cost to the farmer, but represents a financial service that couldn't be available to them in any other circumstances. The farmers also benefited in this case because the supermarket provided written contracts to them and agreed to a minimum/maximum price range.

Challenges to Growth

The FUNDER business model is very solid in terms of risk reduction and is financially very secure since it covers a good part of the production risk through insurance. However, it does not cover the commercial risk in the sense that if production targets are not met, the supermarket is left without the expected supply. The largest risk in this business model is the fact that the actors involved are of a very particular profile and could even be considered unique on a national scenario. If any of these actors decided the fund is not suitable, replacing that actor would pose a big challenge. The fragile balance between actors that are difficult to replace threatens the sustainability of the model. For the bank, growth of the fund is essential for its business case and the bank has established a target of approximately US\$3 million, which may be unachievable. In addition, only one buyer is available to provide the market for this required growth. FUNDER has limited capacity to assume the technical assistance to the farmers and since only part of this activity can be funded by the model there is a risk that the technical assistance may not be sustainable for all farmers seeking loans through the fund.

Replication of the Business Model

The fund is based on a fresh product that is considered basic to the supermarket and hence has a higher tolerance to assume some risks and agreed to terms such as price range. However, it is unlikely to extend to other products or farmers in the same conditions. Again, due to the particular mixture of actors, it is difficult to replicate. Financial actors, buyers, and size of fund need to be flexible to facilitate a similar model.

The Case of Agroexporter of Vegetables, DOME

Background

DOME is a Honduran family business that exports fresh produce such as eggplant, okra, squash, plantain and various Asian vegetables to the United States. In the past, DOME received technical assistance in the design of the processing plant, as well as obtaining various certifications for export through the EDA and RED projects funded by the USG. In its business model, DOME has formal contracts with 238 farmers in the region of Comayagua. Under this alliance, DOME agrees to purchase 100% of the production of each farmer who received free transportation of their produce to the processing plant as well as access to free technical assistance. To assure a year-round supply of the produce it exports, DOME programs the planting of each product and organizes the harvest. DOME employs three agronomists who are in charge of providing in-depth technical assistance to all producers under contract with DOME. The agronomists regularly visit the farmers to train them in good agricultural practices, monitor the use of pesticides and fertilizers and to make sure each farm is on track to supply the volume and quality expected.

Success Drivers

Even after DOME secures its export market, the determining factor to its success remains in offering technical assistance to farmers under contract. The technical assistance guarantees quality control and volume required by DOME's international clients, therefore guaranteeing a market for DOME and the farmers. As the farmers gain profit under the system of receiving technical assistance, they demonstrate loyalty and commitment to DOME, which is the key to the sustainability of this business model.

Challenges to Growth

The main disadvantage in DOME's business model is that it does not own a processing plant. With a weekly shipping requirement of 6 to 12 containers, DOME needs significant working capital to operate. There is a significant delay of 4 to 6 weeks between the date DOME pays its farmers (3 days after delivery) and the date it receives payment from clients (within 30 days after delivery). Owning a processing plant could make more credit available to DOME to expand its operations.

Replication of the Business Model

DOME is a private enterprise with 7 years of operation and which does not receive any funding from donors. The sustainability of DOME resides in two key elements: 1) the extraordinary reputation it was able to build through maintaining a stringent quality standard, as well as consistent supply of the volume required by its clients; and 2) the loyalty of the farmers DOME was able to gain by providing a guaranteed market with a competitive price in addition to other services, such as free technical assistance and free transportation. The biggest challenge in replicating DOME's business model is to find and develop a strong linkage to an export market and the ability to provide efficient and cost-effective technical assistance to the farmers. However, the achievement of the former could facilitate the realization of the latter.

The Case of Andres Carvajal

Background

Andres Carvajal, a corn dealer, began selling small quantities of grain in his cellar in the center of Morazan (Yoro Department), where his business remained located. Through his strategic vision and planning, he began selling directly to processing companies such as flour mills and experienced strong market and profit growth. He did not have adequate infrastructure to support this growth, however, and his suppliers and farmers lacked technical support, which in turn limited growth for several years. To cope with this challenge, Andres developed a joint venture with farmers planting in their own lots and purchased a warehouse used to store and sell rice. Today, the warehouse has four dryers, scales for grain weight and various silos to store dry grain. Andres has a hundred farmers totaling more than 1,000 mz of land, which grow maize twice a year. This business model provides assistance in meeting quantity and variety, through land preparation and fertilizer distribution. These expenses are charged to the producer at the end of the harvest when buying the product. Previously, Andres provided direct technical assistance, but developed an alliance with two major actors in the supply chain for inputs. The first to join the alliance sells Monsanto seeds and then second to join was Bayer, which provides inputs. This partnership will allow farmers covering over 1,000 mz to access quality seeds and improved inputs. In addition, these companies committed to hiring six technicians to provide technical assistance to the farmers.

Success Drivers

Andres is an intermediary who has managed to implement changes and innovations that have stayed in the market. He managed to find an appropriate formula to work hand-in-hand with producers, and through private sector partnerships he manages to add considerable value through service provision and access to credit. The business model is sustainable because the farmers provide the service of land preparation and receive seed and fertilizer inputs, as well as technical assistance, all on a completely commercial basis.

Challenges to Growth

The greatest challenges to the business model are monopsony and the corresponding lack of trust that derives from the fact that both Andres and the farmers know that farmers do not have other viable market options. Replication would increase competition among buyers and thus expand options and could improve the model.

Replication of the Business Model

Replication would be positive not only for expanding markets and services, but also to increase competition in a monopsonistic market like this. Several things, however, make this model difficult to replicate. The vision of the intermediary must be long-term and strategic. The infrastructure may take time to develop. The distance to markets, especially companies that buy grain to make flour, negatively impact profitability.

Annex 4: Characteristics of “Successful Models” Compared to Informal Intermediaries

	Andres Carbajal	Omar Sanchez	Marco Theodocapoulos	ECARAI	INALMA	DOME	Informal Coyotes
Location	Morazan, Yoro	San Pedro Sula, Cortes	La esperanza, Intibuca	La Esperanza	Choloma, Cortes	Comayagua, Comayagua	
Commodities	Corn	Plantain	snowpeas Onions	potatoes	Plantain, Sweet potato Yuca	Eggplant Okra, cucumber, Platain, oriental vegetables	Usually specialized in several crops with one dominant one.
Export	No	No	Yes	No	Yes	Yes	
Process							No
Add value			yes		Yes	Yes	No
Transportation	Yes	Yes	Yes		Yes	Yes	
Financing	Yes	Yes					
Input supplying						Yes	
Other services	mechanization	Washing		Washing, packaging			
Program planting and harvest	Yes	Yes	Yes	Yes	Yes	Yes	
Provides Technical Assistance		some	Through ACCESO	Facilitate supermarkets' agronom	Yes	Yes	No
Hires Agronomists	No	No	No		Yes	Yes	No
Alliance with input suppliers	Yes - Monsanto, Bayern, Fenorsa			No		Yes - Duwest	
Existence of contract with producers	Yes	Yes	No	No	No	Yes	No
payment term	8 days					3 days	
Existence of contract with buyers		Yes	yes	Yes	Yes	Yes	No
Guarantee market	Yes	Yes	Yes	Yes	Yes	Yes	No
Clients	Maseca, Cabeca, granel, Cargill, IMSA	La Colonia La Antorcha Los Andes local whole sale markets		Hortifruti/Walmart La Colonia	Goya Kashi of Kellog Denny's Pollo Tropical	Double Green World's Best Tropical	Local market, supermarkets, other intermediaries
Challenges	Storage capacity low market price due to import of corn			Management capacity			
Main assets	Drying facility 7 tractors Weight station	Processing infrastructures	Processing Plant including a refrigerated chamber	Farmer-based, trust	Processing infrastructures	Processing infrastructures	

Annex 5: Methodology

The study consisted of three elements: first, a household survey of 461 households. The goal was not to attempt a representative national survey from which to draw definitive conclusions, but rather to provide us indications about a significant sampling of households with the desired characteristics.¹⁰

Second, a qualitative study of these same households, which helped the team to interpret the quantitative data with more richness and texture, provided insights into additional questions about motivations of the farmers.

Third, with the quantitative surveys of 85 intermediaries, the team sought a balance between large regional markets at the cities of Tegucigalpa and San Pedro Sula (37), and those who operate at small “secondary city” markets (46). This survey was taken from intermediaries in urban markets of nine cities in the western region and Central District of Honduras.

CONFIE, a Honduran firm specializing in survey methodologies and implementation, designed the sample and undertook the interviews. CONFIE’s methodology documents and questionnaires are with USAID/Honduras.

¹⁰ Past recipients of an MCC project, and thus within the selection criteria of that program - combined with other non-beneficiaries without the selection bias of inclusion in the MCC project.